HEALTH BUILDING NOTE 40

MC0147

Common Activity Spaces

VOLUME 1

Example layouts; Common components

DEPARTMENT OF HEALTH AND SOCIAL SECURITY
and the WELSH OFFICE

HMSO £6.70 net

Health Building Notes

Health Building Notes (HBNs) are intended to assist those involved in the briefing and design stages of schemes to provide new health buildings or to adapt or extend existing premises. The Notes contain information on relevant aspects of service objectives, functional requirements, and design. They establish standards of accommodation that are consistent with the functional requirements and form the basis for deriving Cost Allowances.

The functions, activities, equipment, environmental conditions, engineering services, and dimensions which are critical to the efficient performance of an activity, are identified and discussed but no preference for any particular configuration or plan is implied. Optional solutions with cost implications are indicated, where appropriate, leaving local planners to make their own choices.

The volumes identified by the general title "Common Activity Spaces" bring together guidance on spaces that frequently occur in common form in health buildings. Other Health Building Notes, dealing with specific departments, refer to the Common Activity Spaces building note for guidance on these commonly occuring spaces.

Reference is made in the Notes to Activity Data Sheets which provide the detailed user requirements for each room or space.

The Notes are prepared in consultation with representatives of the National Health Service and appropriate professional bodies.

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Introduction

Introduction

1. This Health Building Note (HBN) contains guidance on activity spaces which frequently occur in common form throughout health buildings, eg bed spaces, sanitary accommodation, offices etc. The present volume deals with clinical, sanitary, administrative and associated spaces while further volumes will cover hospital circulation and communication spaces and ergonomic data relating specifically to designing for the disabled. It is intended that this HBN should be used in conjunction with the HBNs for individual departments.

2. The purpose of this Note is three-fold:

a. to bring together information about these spaces in a single document in order to present it in a convenient form for project and design teams,

b. to eliminate the need for repetition in individual building notes, and

c. to promote consistency of space provision for similar activities.

3. The document does not give recommended areas for activity spaces, but aims to provide the essential information with which the designer may produce the most efficient solution for a particular project.

4. There is no direct cost allowance applicable to the individual activity spaces dealt with in this Note. However, where such an activity space occurs in a hospital department, its cost will be included in the Departmental Cost Allowances associated with the HBN covering that department. Cost allowances will be based upon the ergonomic information in this Note.

5. This guidance relates space provision to the functions of an activity space, having regard at all times to the need for economy. Where design teams use this information to determine space layouts and sizes, the need for economy should always be a prime consideration so that maximum advantage can be obtained from the departmental cost allowance. Activities should be carefully considered so that space can be shared for similar activities or programmed for activities which take place at different times.

6. Where a common activity space occurs in the building note for a department, there will be no detailed description of that space but there will be a cross-reference to this Note. Where there are special departmental requirements which warrant a variation from the common form of the activity space, appropriate information is provided in the relevant Note.

7. This Note gives guidance on individual spaces which, normally, would form part of a larger building project. Guidance has not therefore been included about statutory or other requirements. Project and design teams are however reminded that all relevant Statutory requirements and Codes of Practice etc, should be observed from the outset.

Activity Data

8. It is important that this Note is used in conjunction with the relevant Activity Data 'A' and 'B' sheets (see Appendix for description of the Activity Data Base system).

Disabled People

9. It is essential to ensure that suitable access and facilities are provided for disabled people who have problems of mobility or orientation. This includes, besides the wheelchair bound, those who for any reason have difficulty in walking and those with a sensory handicap such as a visual or hearing impairment. Authorities are reminded of the need to comply with the provisions of the Chronically Sick and Disabled Persons Act 1970, as amended by the Chronically Sick and Disabled Persons (Amendment) Act 1976, the Disabled Persons Act 1981, and (from 11 November 1985) the Building Regulations 1985, Schedule 2. Attention is also drawn to BS 5810 : 1979 'Access for the Disabled to Buildings'. One of the effects of the 1981 Act is to apply this British Standard to premises covered by the 1970 Act, which includes those open to the public. Compliance with the British Standard will also meet the 'deemed to satisfy' provisions of Schedule 2 of the Building Regulations 1985 in terms of design.

10. This Note takes account of the requirements for elderly and disabled people, as appropriate, for the activity spaces covered. General guidance on the various aspects which need to be considered in the planning and design of a particular department is provided in the appropriate health building note. Detailed guidance concerning designing for the disabled is in preparation and will be issued in a separate volume in the near future.

Staff Safety

11. Back pain related to patient handling is a major problem in the health services. It is the cause of considerable personal suffering and sickness absence and ultimately the cause of the loss of many staff who leave the Health Service on account of permanent disability. The design of old and many newer buildings has resulted in inadequate space for the safe handling of patients. Spaces

in rooms, corridors and door openings should permit staff to use mobile hoists and other aids effectively in bed spaces, bathrooms and WCs.

12. The Health and Safety at Work etc legislation requires designers and planners to provide a safe and healthy working environment.

Engineering Services

13. Detailed information about engineering servces is not given in this Note. It is available on the individual Activity Data 'A' sheets (under Technical Design Data) and in building notes, health technical memoranda and other guidance which should be consulted. However, the distribution of mechanical and electrical services to final points of use should be concealed wherever possible employing a ceiling void and a 200mm wide perimeter zone under window sills. Heat emitters should be contained within the latter and critical dimensions should be taken from the boundry of this zone. This 200mm band which includes the floor area occupied by minor vertical engineering ducts is included in the building circulation provision within each revised departmental cost allowance.

Information Provided

14. This volume is divided into two parts which are described below.

Part A Example Layouts

15. The activity spaces in Part A have been subject to ergonomic studies which have been backed up by full-size mock-up exercises. The sections are:

Bedspaces
Staff Base
Utilities
Cleaning Spaces
Pantry
Disposal
Staff WCs
Patients WCs
Bathrooms
Showers
Consulting
Examination
Consulting/Examination
Treatment
Offices
Interview/Relatives
Seminar

16. Each section is composed of:

A User Statement

This gives a brief description of user requirements, supplementing the information given on the 'A' sheets, and giving additional guidance on other aspects such as hospital policy and siting. It is by no means exhaustive and is only intended to draw attention to some of the main considerations.

Activity space Example Layouts

A selected activity space layout is provided for each activity space, and in some cases, several alternative layouts at a reduced scale are also provided. The critical dimensions shown on the layouts should be maintained to ensure the efficient performance of the activities. The design of an activity space may need to be modified to meet specific project requirements such as the building's structural module, but the critical dimensions should be maintained. In the production of alternative designs the skill of the designer should be brought to bear to produce the most efficient and economic solutions. There is less scope for variation when considering, for example, some of the smaller sanitary spaces, and it is recommended that the examples of those shown should be used whenever possible.

Part B Common Components

17. This part contains a selection of component-user data sheets relating to commonly occurring components. The data sheets give dimensional and other ergonomic information about the use of individual components. These drawings assist in the detailed analysis of the activities that occur within the activity space, and thus assist in the production of any new activity space layouts. The section is divided into two parts, PART 1 dealing with components relating to Sanitary areas and PART 2 with components relating to 'Furniture and Fittings'. Within each part, the sheets are arranged alphabetically. There is an alphabetical index at the start of each part. Reference to the component-user data contained in Volume 2 (Circulation Spaces) of this Note may also be required.

Critical Dimensions

18. The notes below explain the dimensional conventions adopted on the component-user data sheets, and how these are applied in the production of activity space layouts.

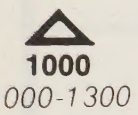
19. Critical dimensions are those dimensions which are critical to the efficient functioning of an activity; thus the size of components, their position and the space around them may all be critical to the task being performed. Guidance on these dimensions for a particular activity is provided in the form of component-user data sheets. These illustrate components, ie equipment, furniture and fittings, and provide ergonomic data on the space required for users to move, operate or otherwise use the component; information about the component, eg fixing heights, and the users, eg reach, is also provided. Component-user data sheets thus complement the information given on Activity Data 'B' sheets (see Appendix 1).

Component Dimensions

20. These relate to the size and position of components as follows:

a. Sizes of components are shown thus

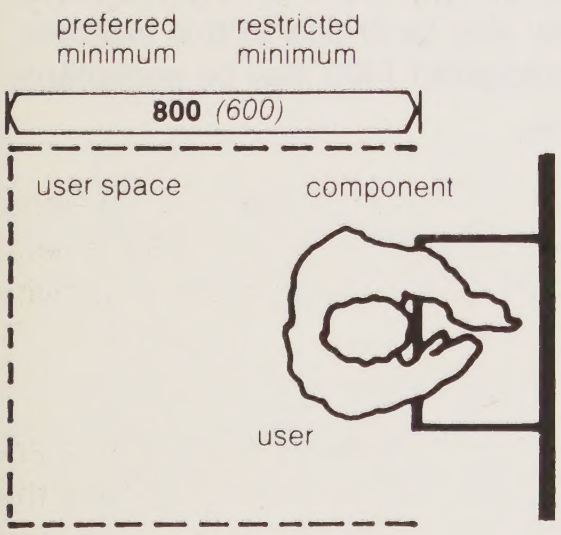
b. Preferred component fixing heights are shown as heights above floor level thus.



(In some cases an acceptable range of fixing heights is also given in italics).

Activity Dimensions

21. Activity dimensions define the user space which is the minimum space required to perform an activity. Two types of activity dimension are given:

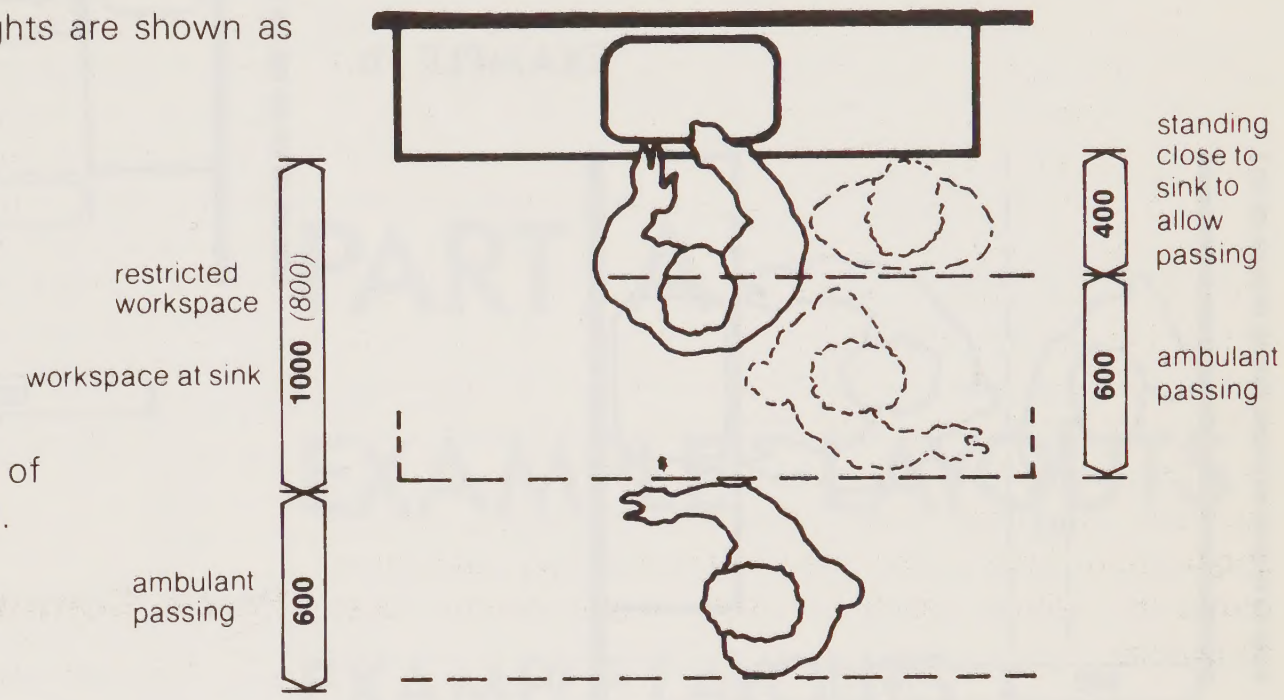


a. Preferred minimum – This defines the minimum space required to carry out an activity efficiently and is shown in bold type.

b. Restricted minimum – This will only allow the activity to be performed at the expense of the user experiencing some difficulty. It is not recommended for general application but may be appropriate when considering the overlapping that can be allowed when two user spaces are adjoining.

Selection of Activity Dimensions

22. When using component-user data sheets to design activity space layouts, selection of the appropriate activity dimensions is essential for economy and efficiency. Selection should be based on careful consideration of the frequency, duration, timing and importance of the activities and also the number of people involved. A typical example of the use of a sink showing activity dimensions provided by the computer user data sheet is shown below.

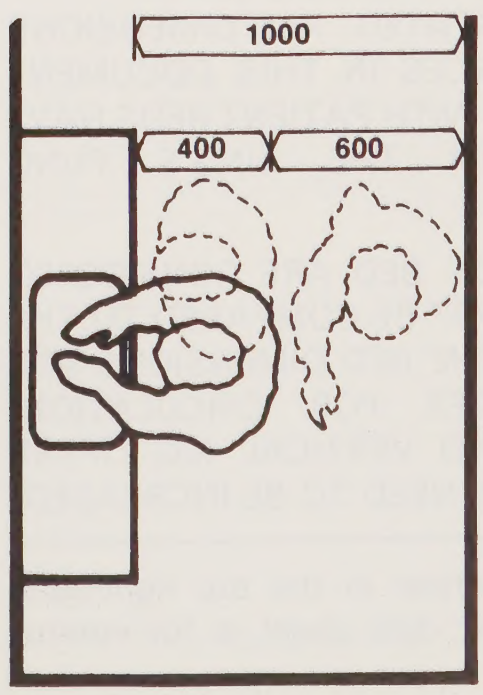


Worked Examples: Selection of Critical Dimensions

23. The following worked examples show the sink being used in 3 different situations and show how the appropriate dimensions would be selected. These examples have been simplified and additional factors such as the movement of mobile equipment may also be critical.

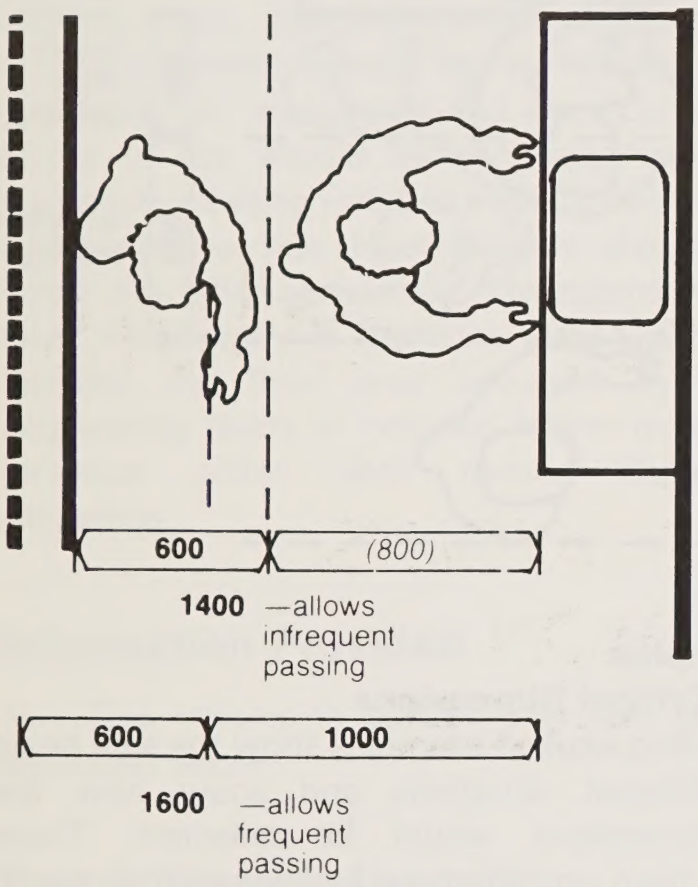
a. If the room is normally occupied by one person only the 1000 workspace dimension may be applicable. An (800) restricted dimension should not be used as this dimension is only applicable where two user spaces are adjoining, not where an individual user space is bounded by a wall or solid obstruction. If the person using the sink stops work and stands close to the sink, 1000 is also sufficient space to allow a second person to pass, ie 600 + 400.

EXAMPLE a.

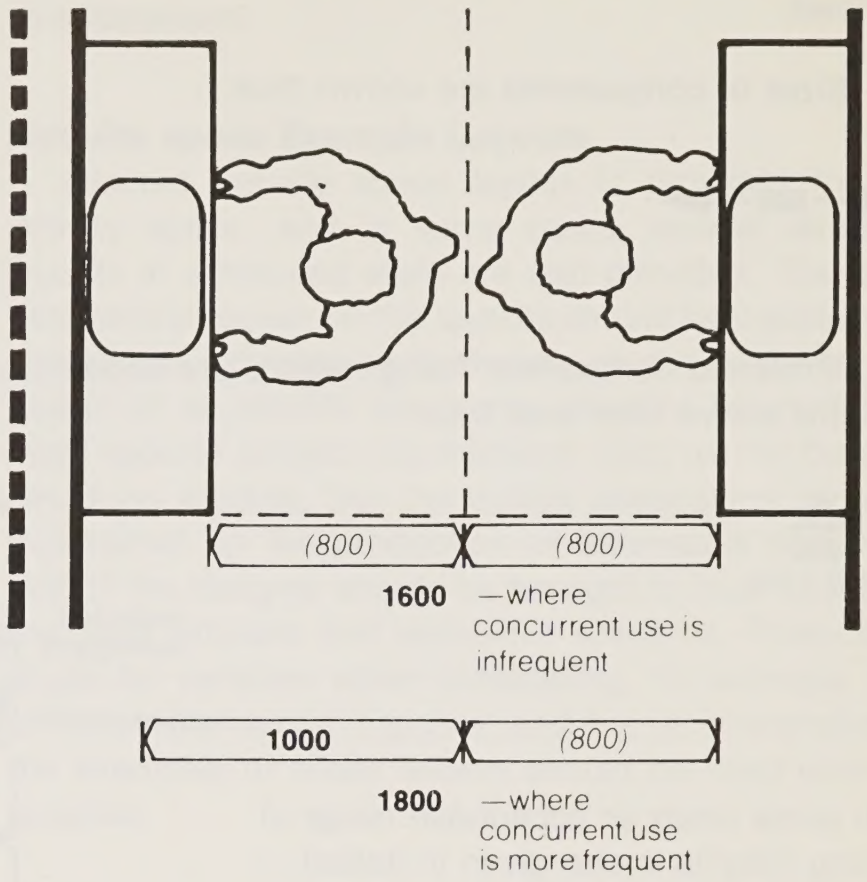


b. If space is required to allow a person to pass, without the user of the sink stopping work, then the 600 passing dimension is added to the workspace dimension. If passing is infrequent then temporary restriction of the sink user's space may be acceptable; this gives an overall dimension of 600 + (800) = 1400. If passing is frequent and restriction of the sink user's space is not acceptable the overall dimension is 600 + 1000 = 1600.

EXAMPLE b.



EXAMPLE c.



c. Where space has to be provided to enable two sinks to be used concurrently the overall dimension between sinks will be the sum of the work-space dimensions, eg if concurrent use is infrequent and of short duration then (800) + (800) = 1600 may be acceptable. Alternatively 1000 + (800) = 1800 allows the full workspace for one sink user and restricted space for the second user where concurrent use of the sink is more frequent. NOTE. The passing of a third person between the two sink users may also be critical in this example. Where the sinks are staggered 1400 may be acceptable as in Example b.

BED DIMENSIONS

UNLESS OTHERWISE STATED, ALL DIMENSIONS AND SPACE ALLOWANCES IN THIS DOCUMENT THAT ARE CONCERNED WITH PATIENT BEDS HAVE BEEN DERIVED FROM THE KING'S FUND SPECIFICATION.

WHEN OTHER TYPES OF BED ARE CONSIDERED THEIR DIMENSIONS *MUST* BE COMPARED TO THE KING'S FUND BED. IF THE BED DIMENSIONS ARE GREATER, ALLOWANCES FOR CIRCULATION, BOTH HORIZONTAL AND VERTICAL (EG LIFTS), AND ROOM SIZES, WILL NEED TO BE INCREASED.

NOTE: The reference number in the top right-hand corner of each ergonomic data sheet is for internal DHSS use only.

PART A

EXAMPLE LAYOUTS

EXAMPLE LAYOUTS OF COMMON ACTIVITY SPACES

Bed/Cot Care

('A' Sheet Head Codes B01–B20)

Definition

The bed space is a living area which contains facilities for the patient to receive medical and nursing care. It may be situated in an activity space making provision for a number of patients or in a single bed room.

General Points

Multi-bed spaces

1. The number of beds commonly varies between 4–6 and there may be a small sitting area. The daily living activities of the patient within each curtained or partitioned bed space require a bed, storage facilities for clothing and personal possessions and an upright chair. An over-bed table is also provided. The upright chair may be replaced by an easy chair.

2. Engineering service outlets, ie socket outlets, oxygen, medical vacuum etc should be provided to meet the clinical requirements of the individual specialty. Bedhead lights, a nurse call system and radio and TV sound channels, which can be controlled by the patient, are also provided.

3. The bed space will need to accommodate various patient, medical and nursing activities and, where necessary, the use of mobile equipment within the privacy of the curtained or partitioned zone. The requirements may vary for certain clinical specialties, but all bedspaces must accommodate the use of trolleys and mobile equipment. The minimum dimensions of each bed space should be maintained at 2.5m x 2.9m (long axis of bed) and there should be no intrusions into this space.

4. When the curtains are drawn around opposing beds, the access space for the movement of staff, patients and equipment should be a minimum of 900mm, and preferably more.

5. Clinical handwashing facilities are required within the multi-bed space and it is essential that the space for this activity should not impinge upon any of the individual bed spaces.

6. Whilst the general lighting should be sufficient to satisfy the requirements of patients and medical and nursing staff, the direct illuminance on to a patient in bed should be of a low level. Good clinical quality colour rendering light sources should be provided, and walls, ceilings and floors should be of suitable colour and reflectancies.

7. The patients should be able to see, speak to and be seen by, nursing staff as they move about the ward. A glazed partition on to circulation areas, capable of being obscured when privacy is required, could meet patient and staff requirements. The ability to see out to a pleasant view through the windows will enhance the patients' environment.

8. WC and personal washing facilities are required in association with each multi-bed space. Access to them will usually be from outside the multi-bed space to avoid disturbing other patients, particularly at night. It is recommended that the distance from each multi-bed space to the nearest WC should be no more than 12 metres.

Single-bed rooms

1. The activities and requirements within the single room are similar to those of a multi-bed space, but the patients may be of a higher nursing and medical dependency requiring visual or auditory privacy, or segregation for clinical or other purposes.

2. However it is important that patients, particularly when acutely ill, should not feel isolated as a result of complete loss of visual or other contact. The single bedrooms should be located close to the staff base, and the partition adjacent to the circulation space should be partially glazed and capable of being obscured from within the room, but this may depend upon the policy for the ward under consideration.

3. The self-contained space must permit two or more staff to transfer a patient in bed to and from a trolley, and enable the patient to sit out of bed in a wheelchair or armchair preferably by the window. The minimum critical dimensions indicated on data sheets 1 and 2 must be maintained. Room dimensions greater than those shown on the example layouts may be required for some specialties such as ITU.

4. The provision of a WC en suite with the room will need to be considered at project level. If WC facilities are not included, they should be provided within a distance of 12 metres of any single room.

5. Personal washing facilities, suitable for a seated patient, should be provided within each single room. These can also be used by staff for clinical handwashing.

The bedspace is a living area which contains facilities for the patient to receive medical and nursing care.

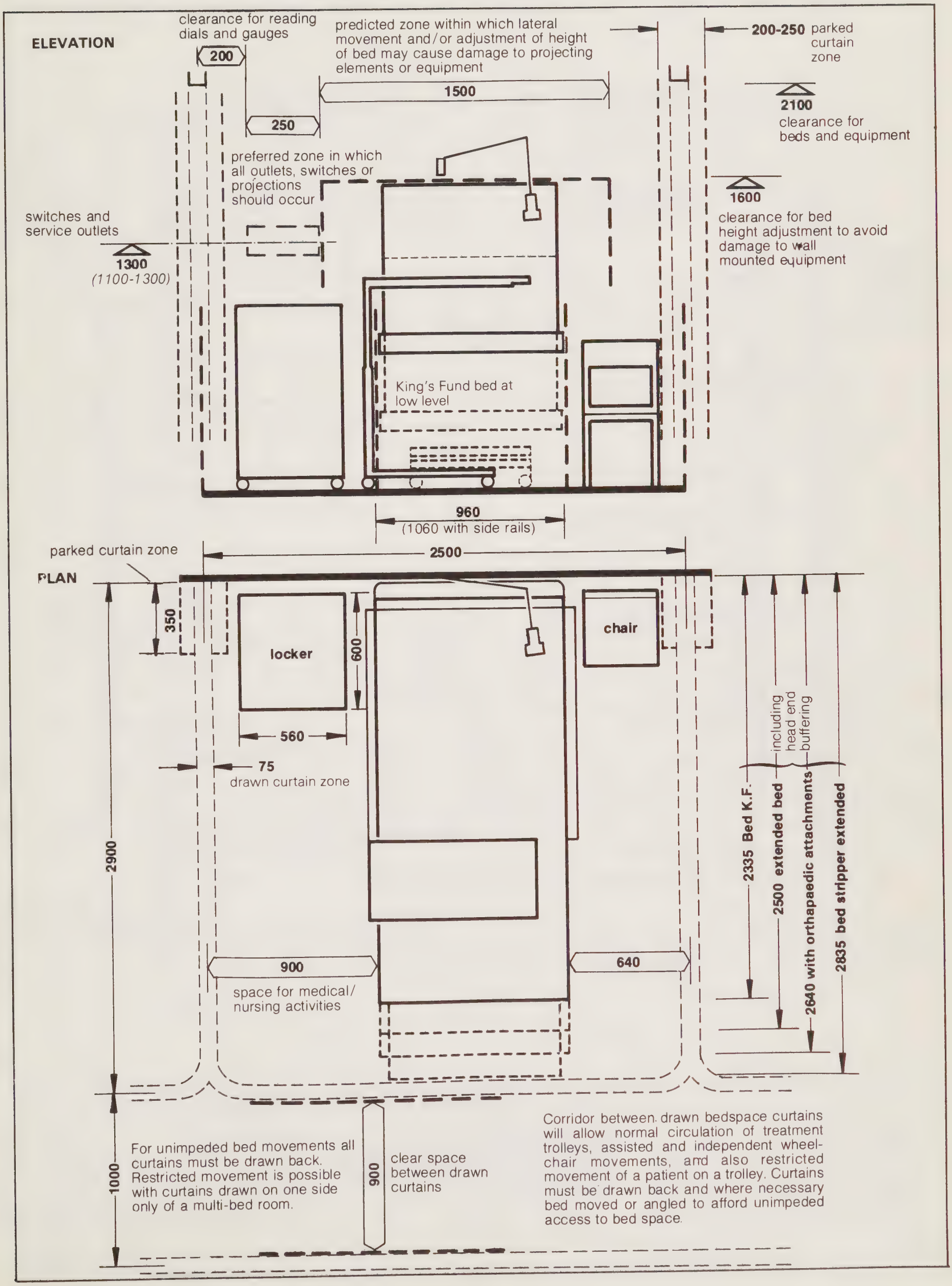
See also notes on 4 and 6 Bed-space data sheets

DHSS **Ergonomic data bank**
Activity space example layout, not to scale

Bed space

3I1

Patient accommodation



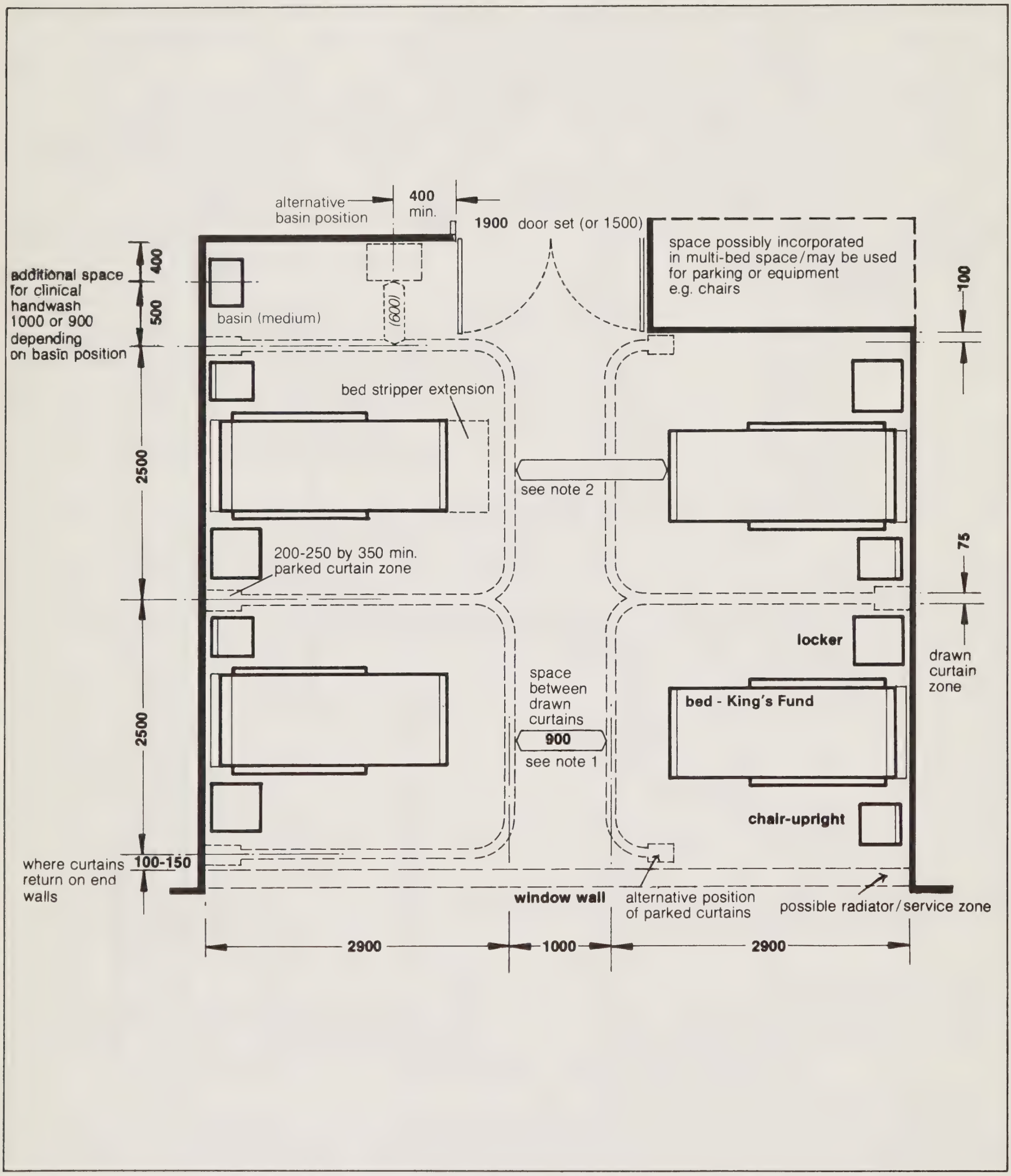
See also Bed space data sheet

DHSS **Ergonomic data bank**
Activity space example layout, not to scale

4 Bed space

3I6

Patient accommodation



Notes.
1. Where concurrent activities take place in 2 opposite bed-spaces 900 may be inadequate because of the tendency for equipment to be parked in the central circulation space. A dimension of 1200 (1100) is more satisfactory in busy multi-bed rooms.

2. Space with one curtain drawn varies e.g. where the bed has orthopaedic attachments space = 1200, bed with bed stripper extended = 1000, overbed table parked at the foot of the bed = 1100.

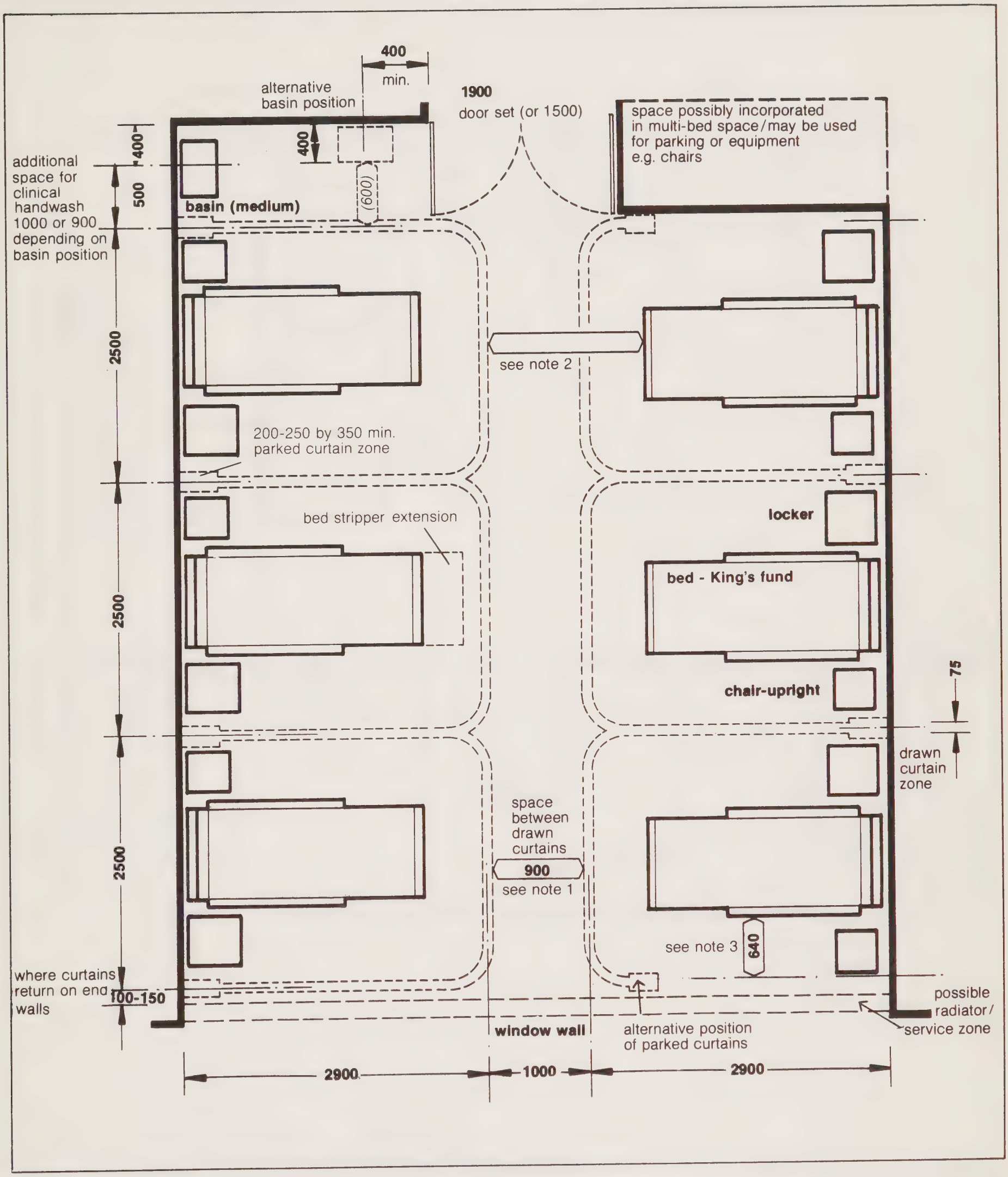
See also Bed space data sheet

DHSS **Ergonomic data bank**
Activity space example layout, not to scale

6 Bed space

3I7

Patient accommodation



Notes.
1. Where concurrent activities take place in 2 opposite bed-spaces 900 may be inadequate because of the tendency for equipment to be parked in the central circulation space. A dimension of 1200 (1100) is more satisfactory in busy multi-bed rooms.

2. Space with one curtain drawn varies e.g. where the bed has orthopaedic attachments space = 1200, bed with bed stripper extended = 1000, overbed table parked at the foot of the bed = 1100.

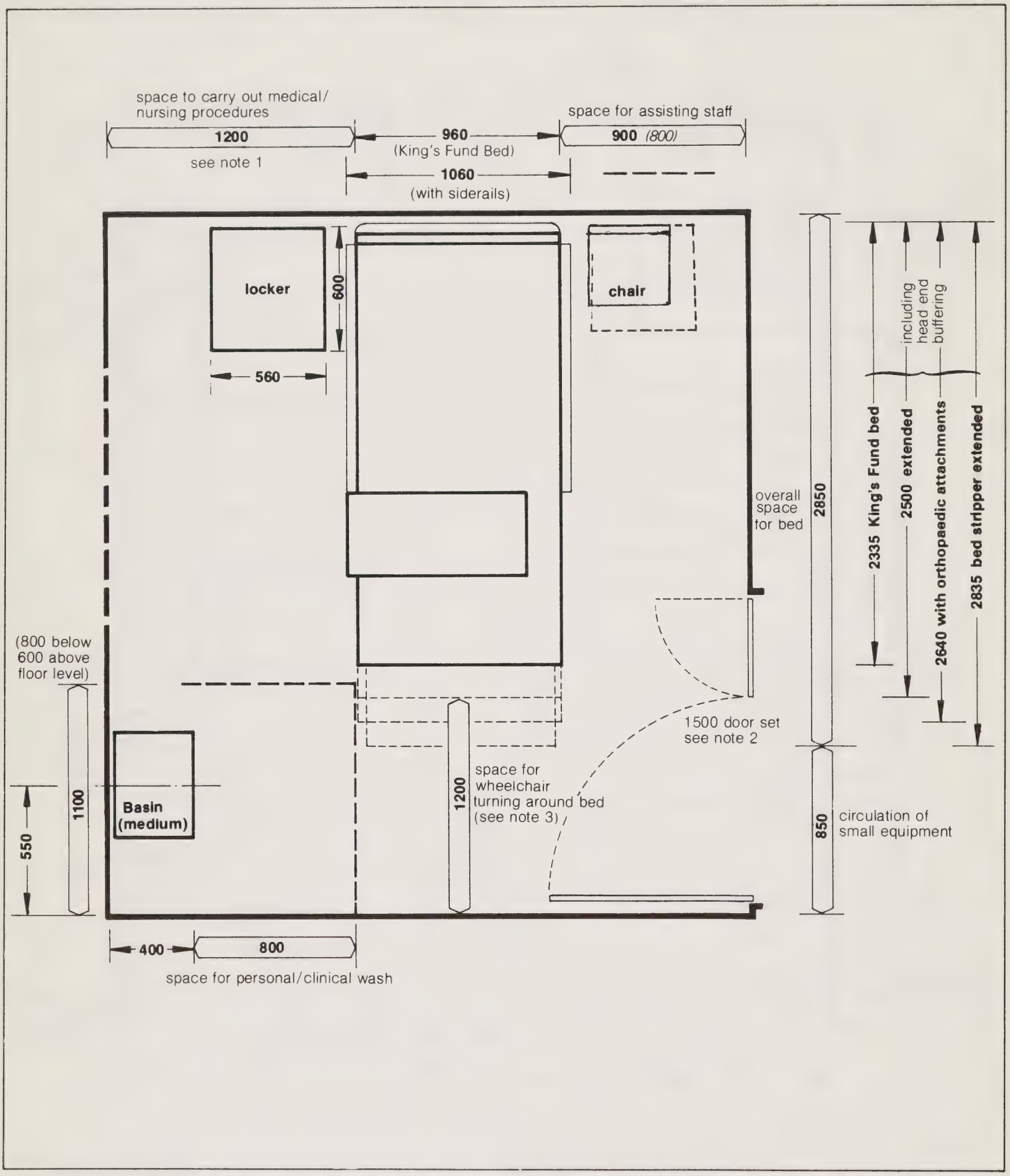
See also alternative layouts —
Single bedrooms data sheet

DHSS **Ergonomic data sheet**
Activity space example layout, not to scale

Single bed room

313

Patient accommodation



Notes

1. Restricted dimension of (900) may be applicable on the principal working side of the bed, but with this layout to allow movement past foot of bed 1200 is required due to the basin position (see also alternative layouts)

2. Smaller door sets (e.g. 1200) require more space to facilitate the turning of beds and can be of an inadequate clear width for beds with attachments.

3. The space at the foot of the bed must allow for 90° wheelchair turns to gain access to the side of the bed, rather than space for straight movement only.

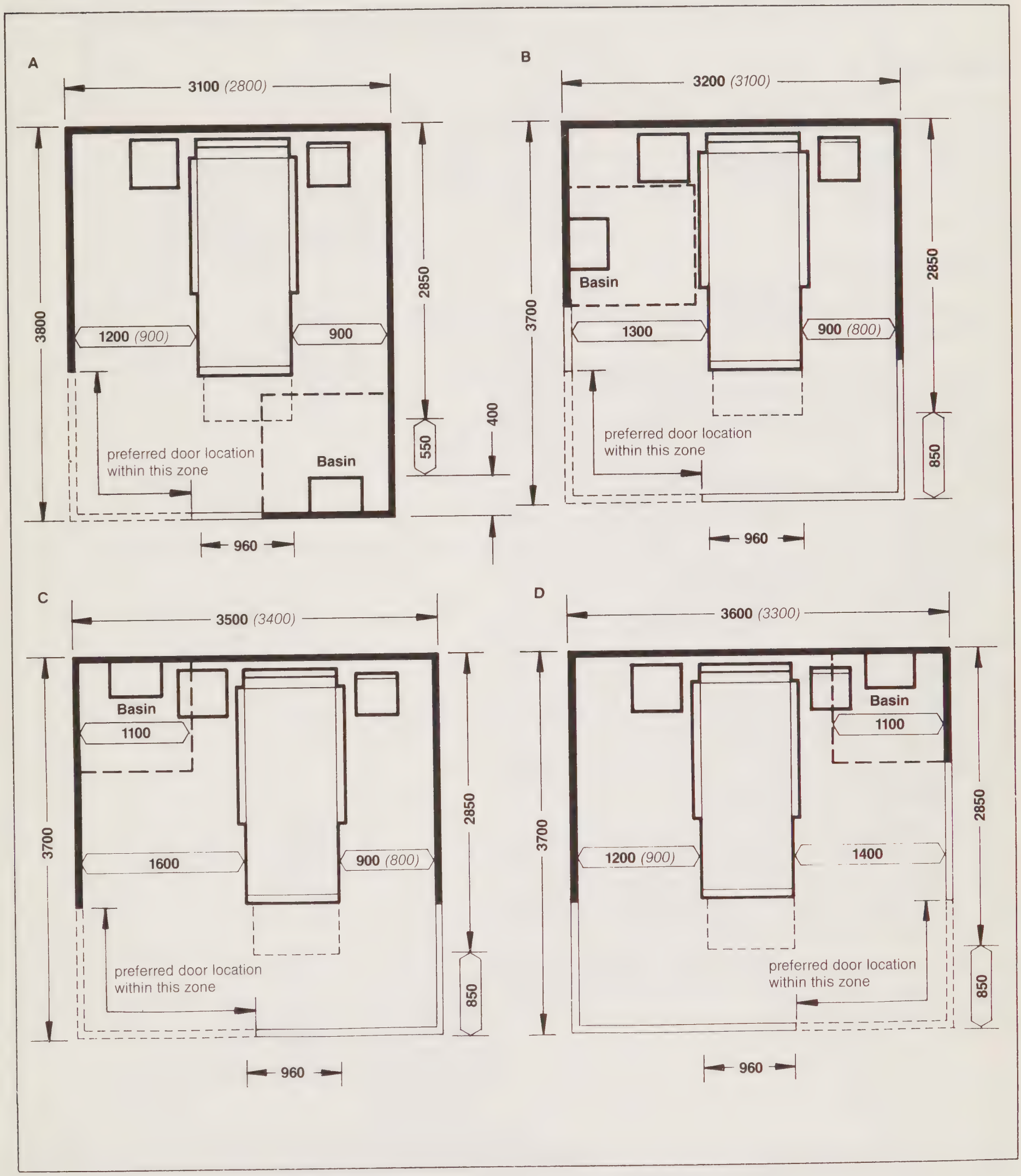
Alternative layouts:
See also Single bed room data sheet

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

3I2

Single bed rooms

Users:
Patient accommodation



Notes

1. Add for radiator/service zone where necessary (approx. 200).

2. The 960 bed width has been taken as 1000 in the additions to give overall widths.

3. All plans assume that wheelchair movement around foot of bed when bedstripper in use (or overbed table parked at foot of bed) is not required. All but plan 'A' afford small trolley circulation past the foot of the bed with bedstripper in use. Plan 'A' affords ambulant circulation past basin and bedstripper. (Use of basin is also restricted by bedstripper).

4. A 1500 minimum door set is recommended, smaller door sets (e.g. 1200) require more space to facilitate turning of beds and also provide inadequate clear width for the passage of beds with side attachments.

Staff Base — ward

('A' sheet code TO101)

Definition

The staff base is the nursing, administrative and communications centre of the ward or department. It provides a focal point to which all staff, whose time is mostly spent with the patients, can return to record data, issue and receive information and receive verbal and written instructions.

General points

1. There should be visual and auditory supervision of the main patient activity areas and of the entrance to the ward.

2. The facilties suggested are intended to meet the needs of most in-patient wards of up to 28 beds, but modification may be needed to accommodate specialty requirements eg ITU or coronary care. There may be sufficient storage to accommodate a working supply of a variety of stationery, the holding of nursing records and patients' current records and X-ray films without providing cupboards behind the desk. This should be assessed at individual ward level. Generally need is underestimated and this leads to improvisations which impair working efficiency.

3. The design, layout and location should be such that activities which are carried out throughout the 24 hours do not disturb the patients occupying the nearby bed areas. Disturbance can be caused by talking, telephone and patient/nurse communications systems, lights, and general activity. This can be particularly disturbing to the patients at night and means of minimising or overcoming this problem must be considered.

4. The staff base should be adjacent to the clean utility in order to ensure staff surveillance against unauthorised entry. Where this is impracticable, a repeater warning light, connected from the Controlled Drugs cupboard to the staff base, must be installed.

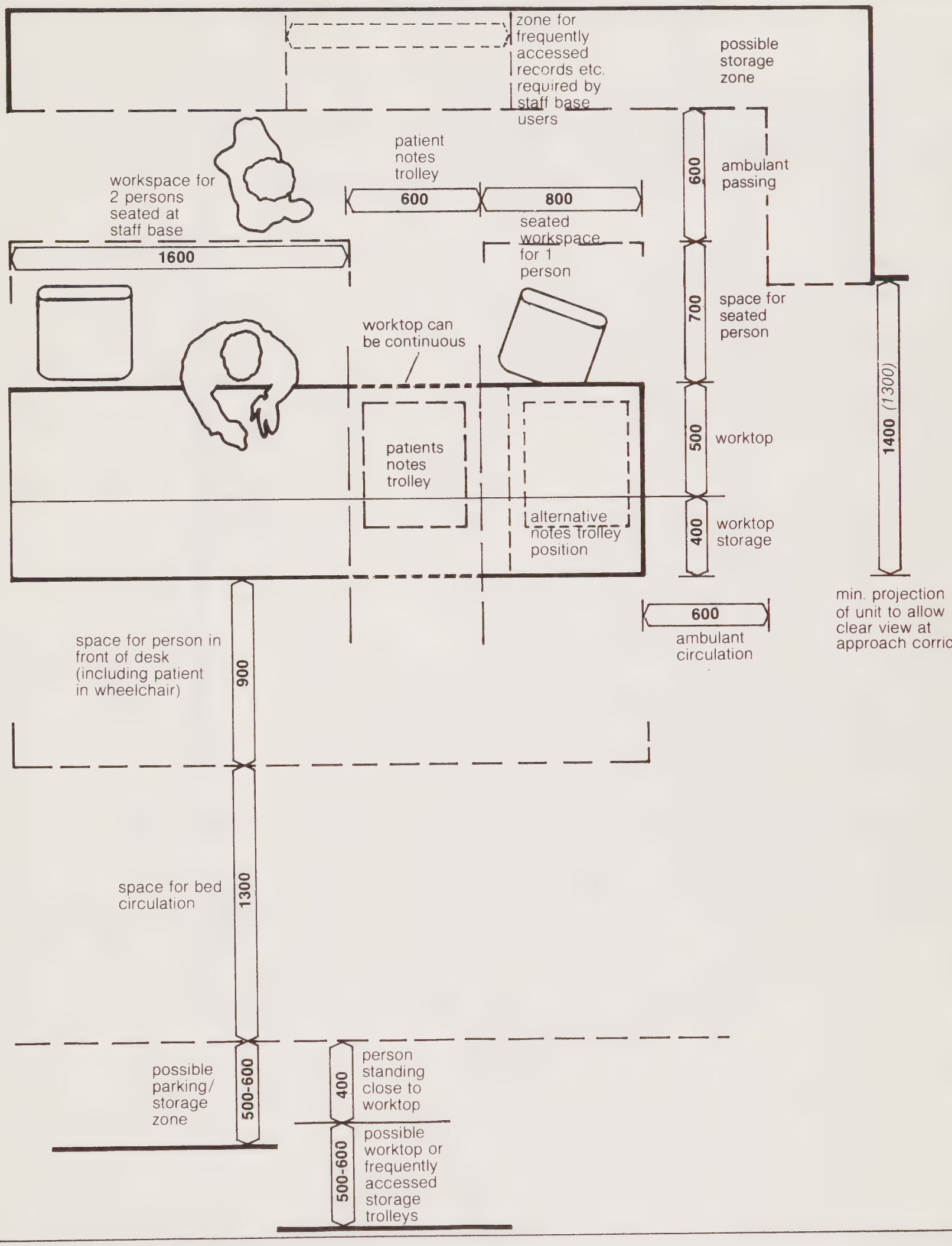
5. Clear space for movement past the base must be maintained even when doctors, patients, nurses or visitors are standing at the counter.

Activities
Nursing, administrative and communication centre for a nursing section of up to 30 beds - (Modifications may be required to accommodate speciality requirements e.g. ITU). Staff base acts as a focal point to which staff, whose time is mostly spent with patients, can return to record data, issue and receive information and receive verbal and written instructions.

DHSS **Ergonomic data bank:**
Activity space example layout not to scale

Staff Base

3I9



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use: see explanatory notes)*

Clean Utility — In-patient accommodation

('A' sheet code TO601)

Definition

The clean utility is the holding and preparation area for all clean and sterile supplies used in the treatment of patients, and may be used for the safe keeping of drugs, medicines, lotions etc.

General points

1. The facilities suggested are intended to meet the requirements of an in-patient ward of up to 28 beds for a period of 72 hours. If local supplies policy requires a longer period these facilities will probably need to be reviewed. The activities in clean utility spaces in wards and other departments are similar but there may be differing storage requirements to meet the needs of a particular clinical specialty.

2. A flexible approach is necessary for storage, taking into account manufacturers' varying methods of packaging (including ranges of dispensers), the variable quantities and range of items required, the need to meet local supplies distribution policies, and the possible changes over a period of time that will take place in all these areas.

3. Adjustable open storage is preferred. Cupboards should be provided only where security is required for statutory reasons, eg The Misuse of Drugs Regulations 1973, (SI 1973 Nos: 797 and 798) (HC(77)16) or where the misuse of items may be potentially hazardous.

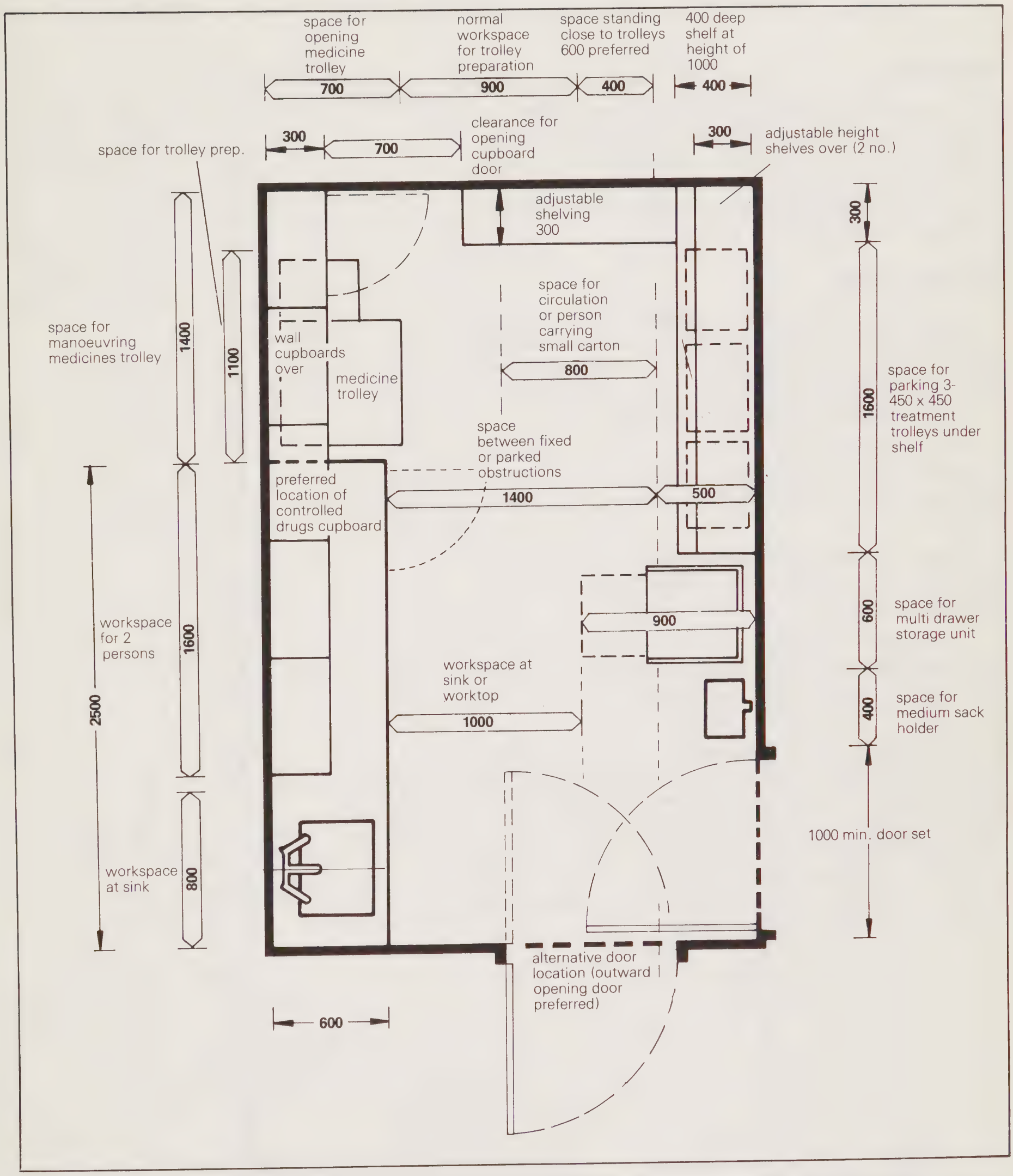
4. The clean utility should be adjacent to the staff base in order to ensure staff surveillance against unauthorised entry. Where this is impracticable, a repeater warning light, connected from the Controlled Drugs cupboard to the staff base, must be installed.

Facilities for holding and preparing all clean and sterile materials used in the treatment of patients, and may be used for the safekeeping of drugs, medicines, lotions etc.

Clean Utility

2H10

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The facilities shown are the minimum for a wards of up to 28 beds for a period of up to 72 hours. (If local supplies policy requires a longer period these facilities may need to be reviewed.) The activities in clean utility spaces in wards and other departments are similar but there may be differing storage requirements.

Dirty Utility, with bed-pan disposal unit, general

('A' sheet code Y0301)

Definition

The dirty utility provides facilities for storage of single use containers used for the collection of human waste, its subsequent disposal and other associated activities, and the temporary holding of used equipment, materials and refuse prior to transfer to the disposal point to await collection.

General points

1. The disposal activities for most wards are similar but some specific modifications may be required for certain specialties eg central delivery suite, out-patient and diagnostic departments. These may require special provision or provision for certain of the activities only.

2. The facilities suggested are intended to meet the needs of a general in-patient ward of up to 28 beds, where the operational policy is based on the use of disposable bed-pans.

3. Open adjustable shelving is preferred, for reasons of economy, convenience and flexibility, except where security is required.

4. The need for a refrigerator for a holding of specimens for pathological investigation should be decided at project level and will depend upon the clinical specialty of the ward and the local laboratory services.

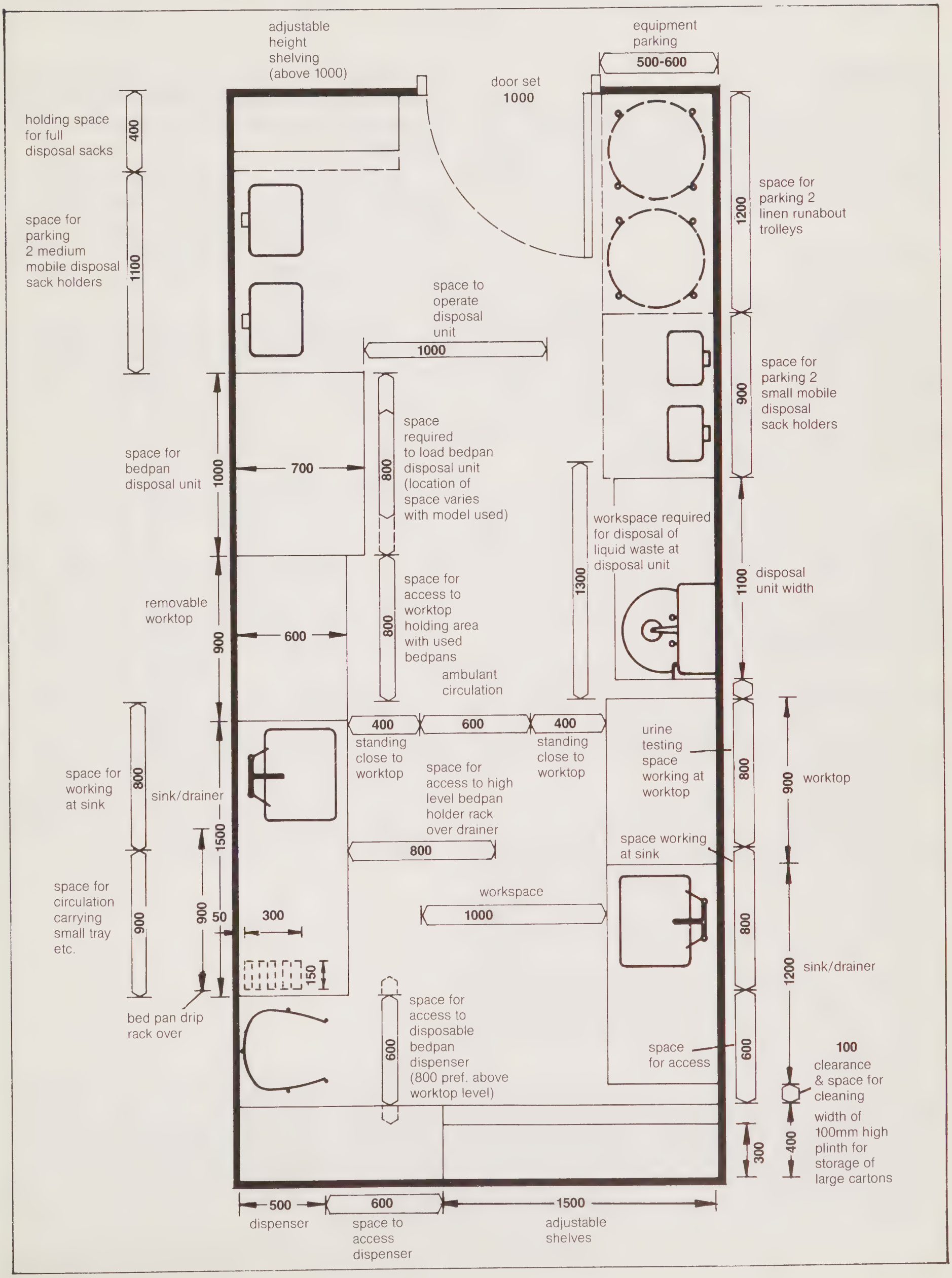
5. Only limited provision is made for the temporary holding of materials requiring disposal or reprocessing. As soon as sacks and bags have been filled they should be sealed and taken as soon as possible thereafter to the associated disposal room to await collection, thus avoiding obstructions within the activity space, and a build up of odours. The space required for temporary holding will depend on the hospital disposal policy.

Facilities for storage of single use containers used for the collection of human waste, its subsequent disposal and other associated activities, and the temporary holding of used equipment, materials and refuse

DHSS **Ergonomic data bank:**
Activity space example layout data sheet, not to scale

Dirty Utility

2H12



Cleaning Space - general

('A' sheet code Y1501)

Definition

The cleaning space general is the base from which domestic services staff provide the immediate day-to-day cleaning service in wards and departments. It provides storage for cleaning materials and equipment in daily use and facilities for the various activities undertaken.

General points

1. Provision should be based on one cleaning space general to each ward and one to each department. The number of cleaning spaces appropriate to a building will be dependent upon (i) the operational policy of domestic services and (ii) the compromise achieved between the need to locate the spaces in close proximity to the areas served and the need to limit the number of such spaces to avoid duplication of space and equipment.

2. The scope for sharing between departments or wards should be explored by project teams who should consult with local domestic services management; sharing may alter basic equipment needs. Where there are long distances between cleaning spaces and remote activity areas, peripheral facilities should be provided for emptying and filling of bowls and buckets: in wards the dirty utility may serve this purpose.

3. The type and number of items of equipment and materials to be stored is dependent upon the finishes used in the accommodation, numbers and deployment of staff and the frequency of cleaning. This in turn will determine the space requirement.

4. 'A' Sheet Y1501 is based upon the assumption that floor areas in wards and departments will have approximately 70% textile coverings and 30% PVC coverings and other hard floor finishes. It is assumed that walls, doors and working surfaces are smooth and easy to maintain. The equipment required will vary for different proportions of floor coverings and types of finishes. In areas such as the operating theatres, additional items eg Cleaner Suction wet/dry (Activity Data 'B' Sheet C52CE) will be required; individual Health Building Notes will provide guidance on suitable finishes and any necessary variations from Y1501 for the department concerned.

5. A cleaning space general should be planned to allow adequate access for equipment and adequate space for storage. Space is also required for manoeuvring cleaning machines, for loading and unloading trolleys, and parking them, emptying and filling of buckets and bowls and routine servicing and cleaning of equipment. There should be unrestricted access to the sink.

6. Where other facilities are not provided for staff at their place of work, small security lockers may also be required for storage of small items of personal belongings such as handbags etc.

7. It is important that project teams should consult with domestic services managers at an early stage to ensure that the equipment selected is suitable for the finishes proposed and meets the needs of the service to be provided, the operational policy, and any special requirements within the district.

8. 'A' Sheet Y1501 provides examples of generic types of equipment and their space occupying components. These may need to be varied to accord with individual district domestic service policy. Alternatives which may be considered are:

Cleaner, industrial canister with driven brush

Cleaner, upright with driven brush (for use in departmental areas where noise, exhaust air and filtration are less important).

NOTE: As it is assumed that the predominant finish will be textile floor covering, the main cleaning machine need is suction cleaning with a driven brush with suitable back-up equipment for hard floor areas in the event of the proportions changing the equipment requirements.

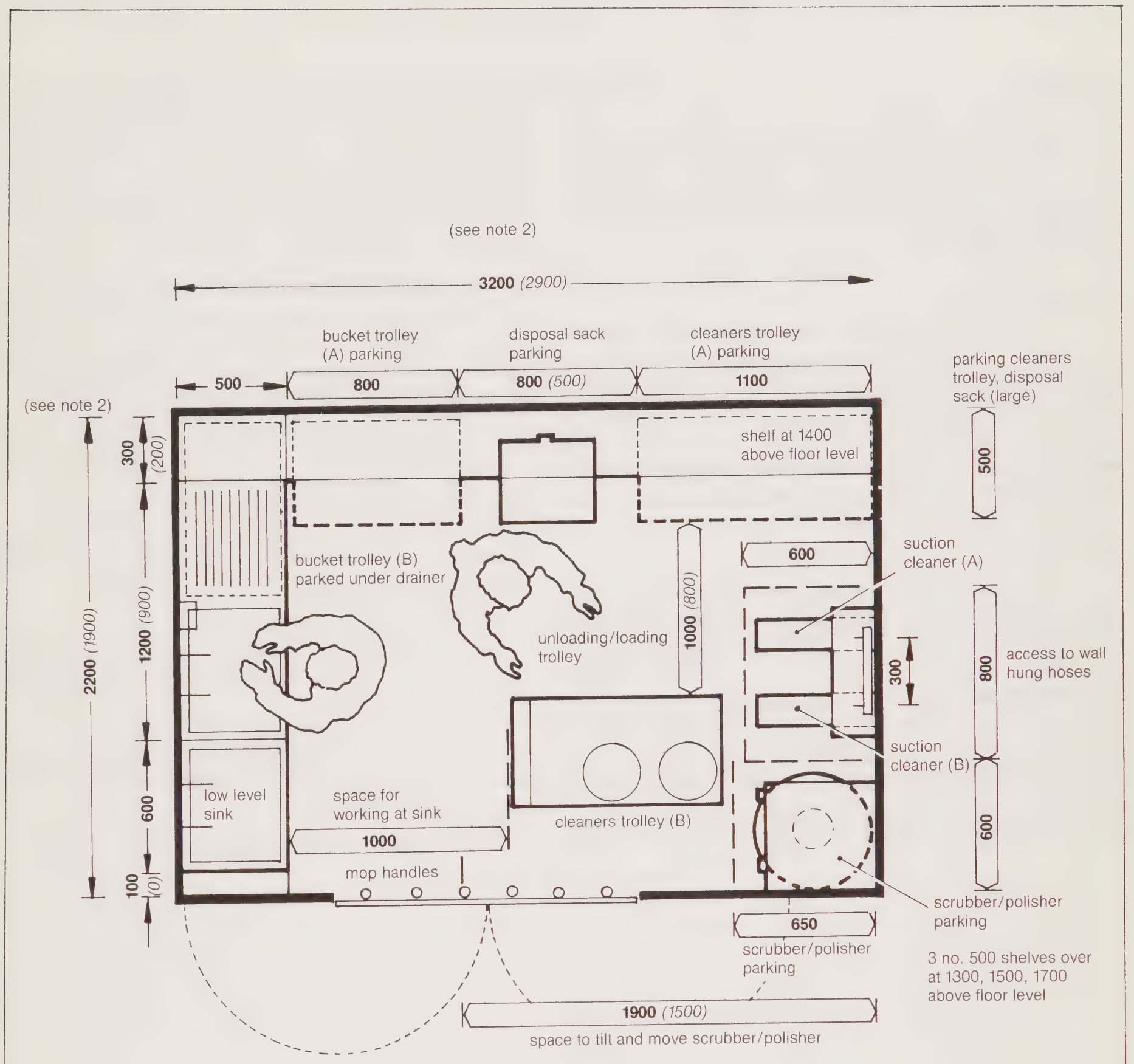
9. Under normal circumstances suction machines which conform to the standards of BS 5415 for noise and filtration efficiency should be used in patient areas. Selection of alternatives to 'A' Sheet Y1501 should normally be from items available under central contract and project teams in conjunction with domestic services managers should be aware of the items available in the Health Service Supply Purchasing Guide.

Base from which domestic staff provide the immediate day to day cleaning service in wards and departments

Cleaning space

2H11

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Equipment required depends on the type and proportion of floor coverings and finishes in the department served, and layout shown is based on the assumption that 70% of floor areas will be textile and 30% PVC.

2. If the restricted (bracketed) dimensions are used a workspace of 2900 x 1900 results, which becomes minimally acceptable if — the corridor space outside the room is used as part of the workspace and for temporarily parking equipment and if the activities and sequences are strictly programmed to avoid two people working in the same room at the same time ie principal activities do not occur concurrently and no additional equipment is introduced into the space.

Cleaning Space - team/heavy duty

('A' sheet code Y1502)

Definition

The cleaning space team/heavy duty is a base from which the domestic services provide the day-to-day team and heavy duty cleaning services. It provides storage for equipment and materials and facilities for the various activities undertaken.

General points

1. The number of cleaning spaces team/heavy duty will depend upon the size of the project and the extent of the service, but will not be less than one per hospital. The actual number will be dependent upon (i) the policy for domestic services, and (ii) the compromise achieved between the need to locate the spaces centrally in relation to the areas to be served and the need to limit the number of such spaces to avoid duplication of space and equipment.

2. The type and number of items of equipment and materials to be stored is dependent upon the finishes used in the accommodation, numbers and deployment of staff and the frequency of cleaning. A number of items of equipment are large and require lifts or ramps for movement from floor to floor. Sufficient space must be available for manoeuvring and servicing of equipment, storage of cleaners' materials and equipment, emptying and filling of machines and washing and drying of machine pads and cloths. For the purpose of this Note it has been assumed that a central laundry is available for washing and drying of mop heads and other items. If it is not available then provision of a washing machine and Tumble Drier-Stacked (B51AJ) will be required. It is assumed that cleaning machines for outdoor use, mobile cleaning platforms and ladders will be stored and maintained within the Works Department.

3. 'A' Sheet Y1502 outlines the basic requirements in line with the above assumptions. Equipment requirements will be dependent upon the finishes to be cleaned and the domestic services operational policy. Project teams should liaise closely with domestic services managers to ensure the correct selection. Selection of alternatives to the equipment shown on 'A' Sheet Y1502 should normally be from items available under central contract in the Health Services Supply Purchasing Guide. Individual Health Building Notes will indicate which items of equipment are likely to be required for the finishes etc considered to be appropriate for the department concerned.

4. Special facilities are required for the charging of lead batteries. It is essential, therefore, that such batteries are charged only in those areas specifically designed for the purpose.

5. Where large uncluttered areas of hard floor covering are provided, a combined scrubbing/drying machine should be considered.

NOTE: Drawings are not provided for this space.

Pantry 30 person

('A' sheet code PO603)

Pantry 60 person

('A' sheet code PO604)

Definition

An activity space with facilities for the preparation of beverages and light snacks and associated activities.

NOTE: In applying the recommendations to in-patient areas it is important to note that this guidance assumes that there is a central tray service and a central wash-up service for all crockery, cutlery etc.

General points

1. The pantries suggested are intended to meet the needs of one or more wards but may be applicable to other departments and to other health buildings.

2. Special attention should be paid to ensuring that the pantry is adequately sound contained to avoid undue disturbance to patients.

3. Variations of space and equipment may be required to comply with local whole-hospital catering policies.

4. Finishes should comply with environmental health requirements.

5. The general lighting should be positioned so that the working surfaces are adequately illuminated.

NOTE: Drawings are not provided for this space.

Disposal room - general

('A' sheet code Y0603)

Definition

A room which is a departmental holding point for bagged or containerised equipment and refuse awaiting the collection service.

General points

1. The provision of a disposal room avoids obstructing either the working space within the dirty utility or general circulation space. The preferred location, accessible either externally or from the hospital street would enable the porters to make the collection without having to enter the department.

2. The size of the disposal room will be for decision at local project level and will depend upon the assessed workload and local disposal policy.

NOTE: Drawings are not provided for this space

'A' Sheet Code

Staff WC	— (M) Staff	V0901
Staff WC	— (F) Staff	V0902
Staff Washroom/WC	— (F) Staff, 1 WC (personal washing basin)	V1005
Staff Washroom/WC	— (M) Staff, 1 WC (handrinse basin)	V1007
Staff Washroom/WC	— (M) Staff, 1 WC (personal washing basin)	V1018
Staff Washroom/WC	— (F) Staff, 1 WC (handrinse basin)	V1019

Definition

1. An activity space providing facilities for staff to use a WC.

General points

2. There are two main types of activity space:

   a. A space where facilities for handwashing are provided eleswhere.

   b. A space where facilities for handwashing are an integral part of the space.

3. Where assisted WC facilities are required to meet the needs of disabled staff, provision should be similar to that for wheelchair patients. (Activity Data A Sheet coded V0904 — see 'Wheelchair WC cubicle with handrinse basin' data sheet on page 32.)

4. Where cubicle doors open inwards a clear space of 400mm (300mm) should always be maintained between front edge of WC seat and furthest points of penetration of the door swing (ie when open 90° for doors positioned in front wall, or to leading joints where door is positioned in side wall of cubicle).

5. Although, when WC cubicle doors open outwards, a reduction in cubicle length of 150–300mm may be possible, an overall saving in space may not be effected, as it may be necessary to provide more space outside the cubicle to accommodate the outward doorswing safely, and also retain a satisfactory minimum level of circulation. Accommodating the doorswing inside the cubicle ensures more generous space for personal washing/adjusting clothing and more effective use of space. Outward opening doors are not therefore generally recommended for staff accommodation. (Outward opening doors are however recommended for patient accommodation for reasons of emergency access.)

6. It may be necessary to consider whether provision is adequate to meet the special needs of staff from particular ethnic groups if it is likely that there will be a number on the hospital staff.

7. The provision of a separate fully-enclosed room with integral wash basin for each WC is usually to be preferred over the provision of a group of partially-enclosed WC cubicles leading off a common wash-room.

Apart from being aesthetically more acceptable to most people, it allows for flexibility in assigning WCs to men or women or for use by both, and enables the WCs to be dispersed if necessary. The provision for each sex of a wash room with associated WC cubicles may, however, be considered appropriate where five or more WCs are required in all.

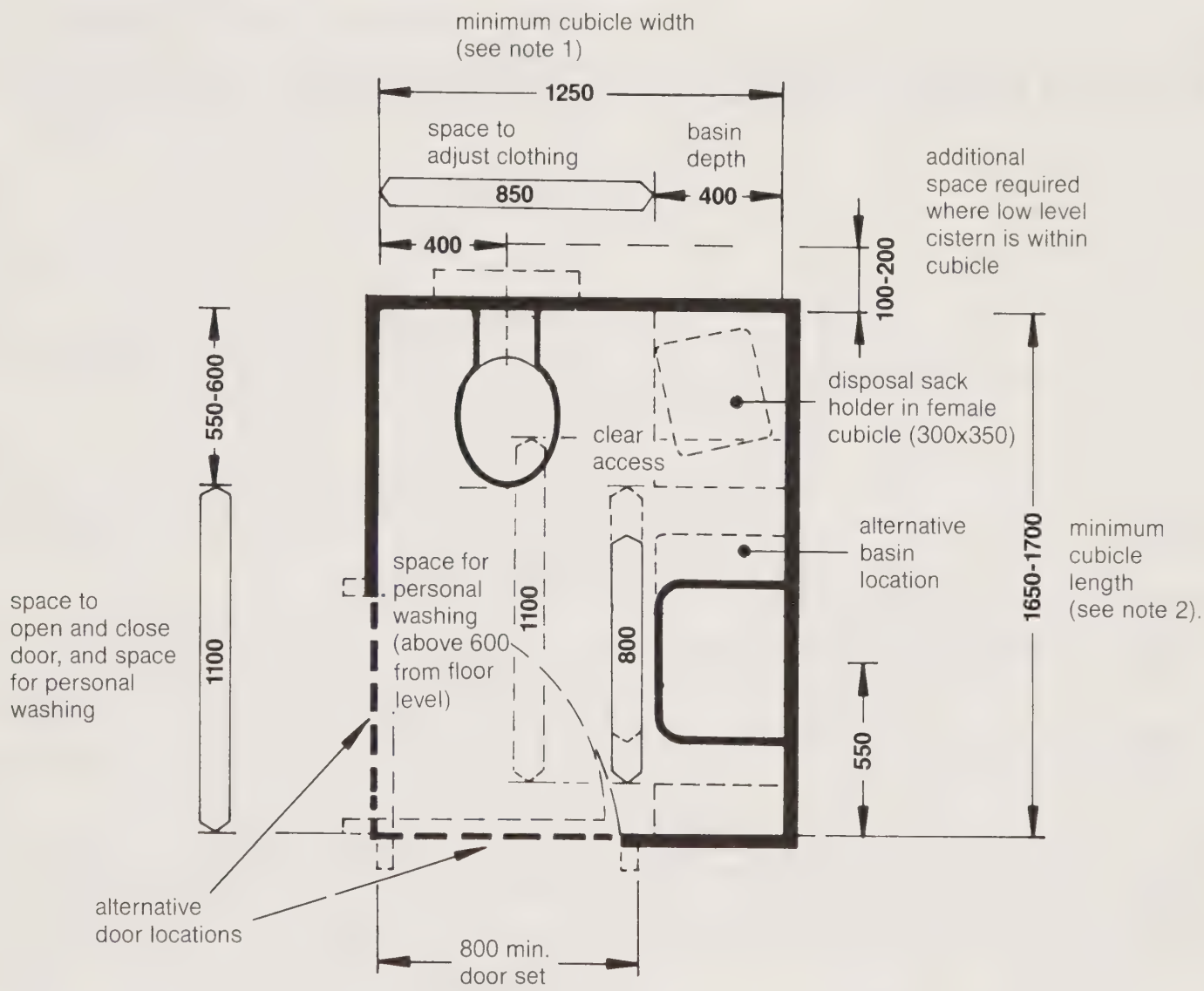
Activities:
Facilities for staff

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Staff WC

with basin

2H22



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Cubicle width may be reduced to 1200 if a handrinse basin of 350mm projection is used.

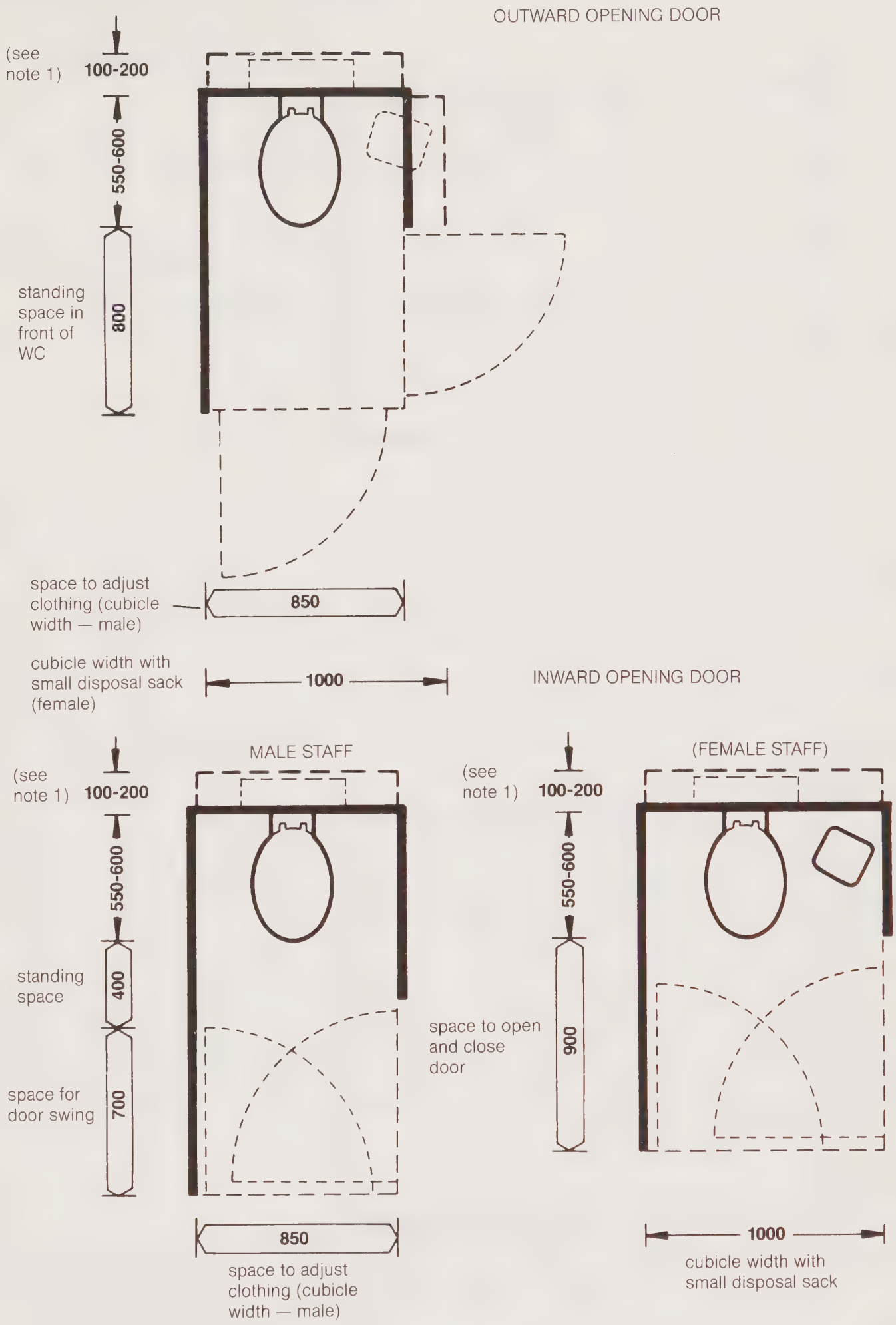
2. Where cubicle doors open outwards, cubicle length can be reduced by 150 (250 max). This may not however effect an overall saving as a space must be provided outside the cubicle, also the door swing should not obstruct space for circulation.

Facilities for male and female staff

Staff WC

2H24

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Additional space required where low level cistern is within cubicle.

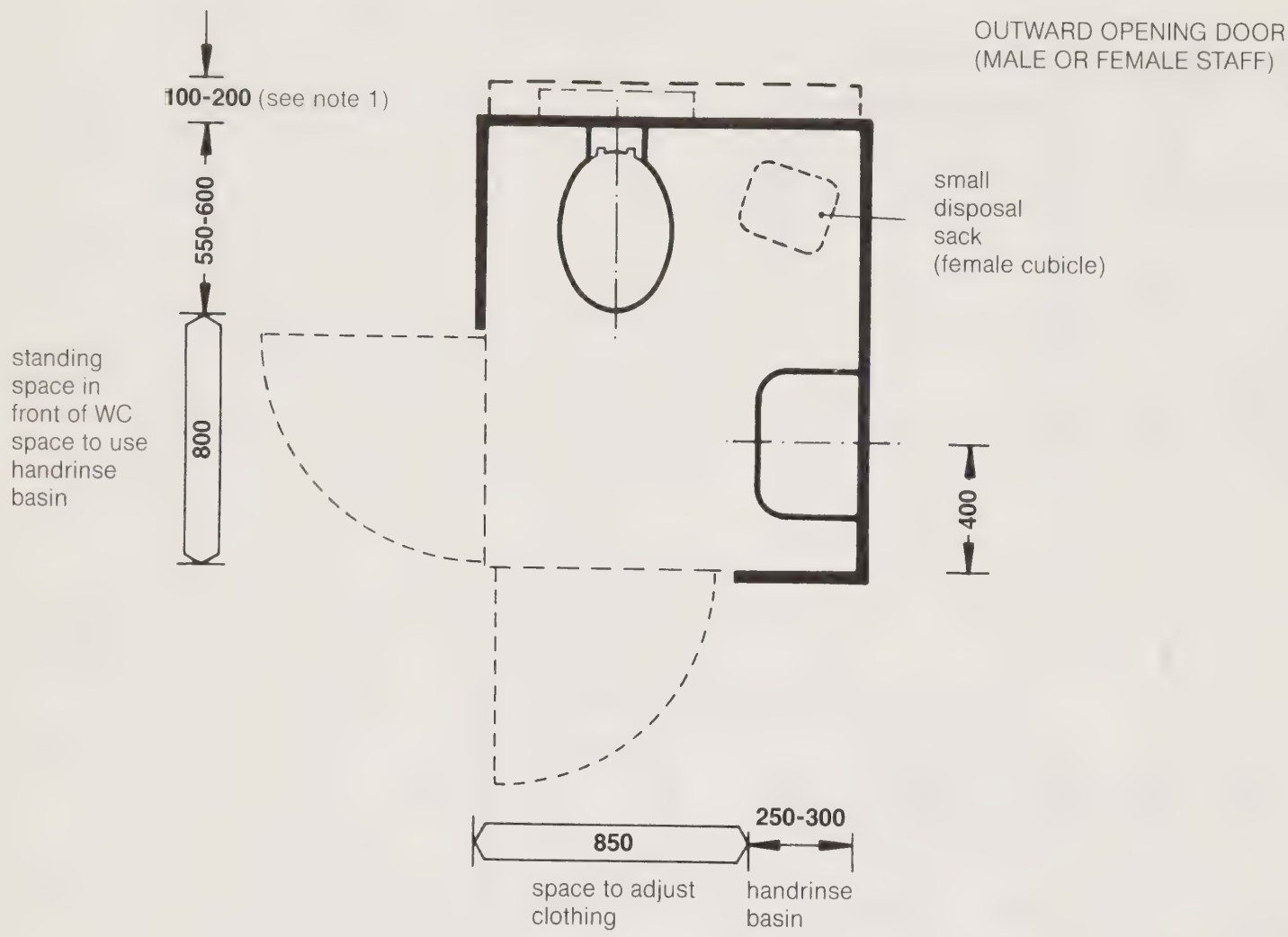
Facilities for male or female staff

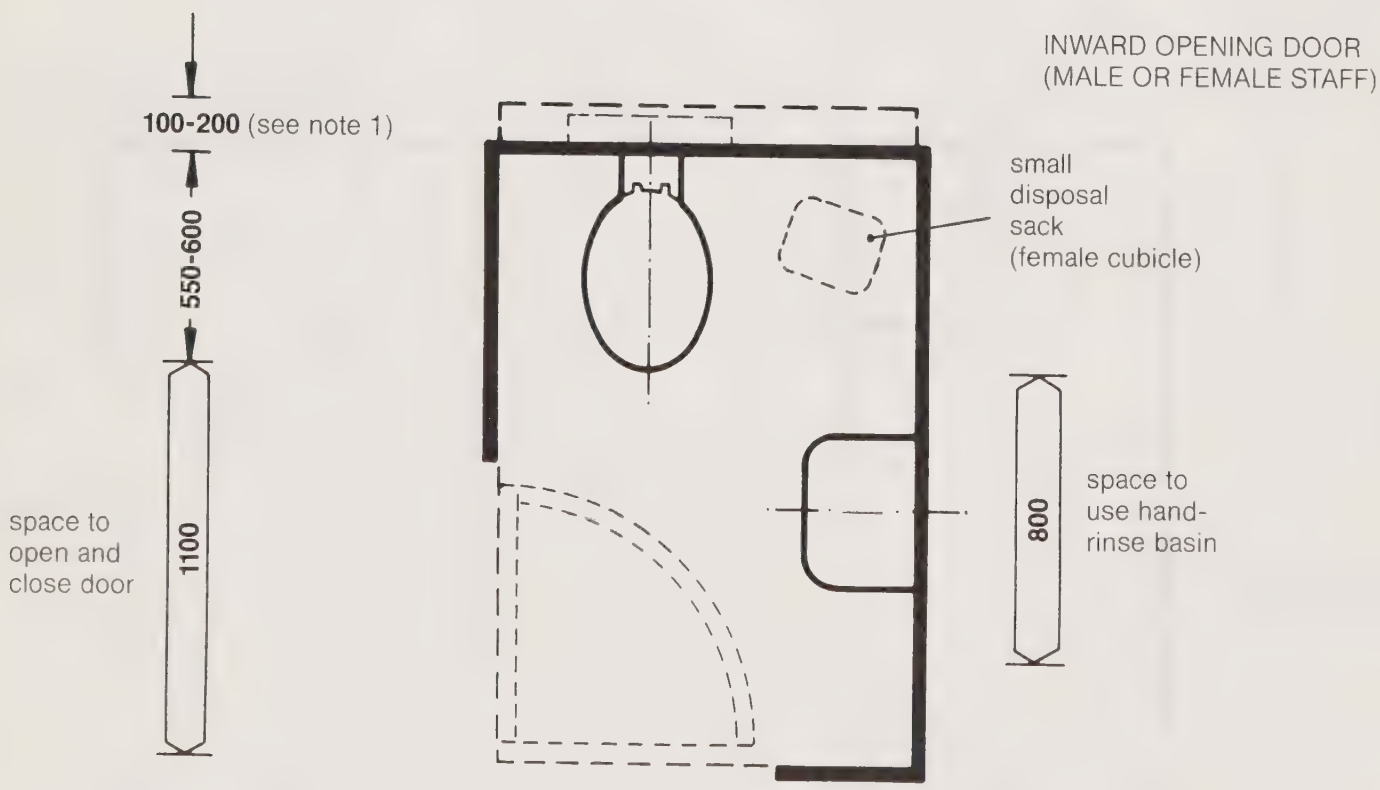
Staff WC

with handrinse basin

2H23

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale





1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Additional space required where low level cistern is within cubicle.

'A' Sheet Code

Patient Washroom/WC — Ambulant Patient

(See B Sheet B27 E J)

Patient Washroom/WC — and Bidet

V1209

WC — Wheelchair Patient

V0904

Washroom/Assisted WC — Wheelchair Patient

V1204

Definition

Space required varies depending upon range of disability and components to be accommodated:

a. *Washroom/WC — Ambulant Patient* — An activity space with WC and handwashing facilities for an ambulant patient, or a patient in a sanitary chair requiring minimal assistance.

b. *Washroom/WC and Bidet* — An activity space with WC, bidet and handwashing facilities for an ambulant patient or a patient in a sanitary chair requiring minimal assistance.

c. *WC — Wheelchair Patient* — An activity space with WC and handwashing facilities for a patient in a wheelchair to have access to and use the WC etc, independently and/or assisted by staff as necessary.

d. *Washroom/Assisted WC* — An activity space with WC facilities for a patient in a wheelchair to have access to and use the WC independently or assisted by staff as necessary, and associated personal washing facilities suitable for a patient seated in a wheelchair or other chair. Access to the WC can be provided from either or both sides.

General points

1. The space allowed for activities should take into account the varying degrees of assistance that patients may require and the fact that they may be relatively inexperienced in manoeuvring a wheelchair.

2. The position of the door should be such as to reduce the number of manoeuvres required to position the chair to enable the patient to transfer to the WC.

3. The position of the WC within the room should also allow the patient a variety of approaches for transfer to it ie frontal, oblique or lateral, depending on his or her ability. Where single-sides access WCs are provided it is essential that there should be 'handed' versions to cater for patients with right- or left-handed disabilities.

4. Reference should be made to the drawings on pages , showing the space requirements for the use of wash basins by wheelchair users.

5. It should be possible for staff to gain easy entrance occupied room in case of emergency.

6. For wheelchair users it is essential that a small basin be within reach of a person whilst seated on the WC. This allows hand cleansing to take place before transferring back to the wheelchair. However where the need may be for personal washing, as in in-patient accommodation, a medium sized basin should be located within the space so that it is accessible to wheelchairs or other seated users.

7. In assisted WCs the door, when opened, should screen the patient using the WC in order to maintain privacy. This should be achieved by the design of the space wherever possible. When this is not so or when the door has to open out, then a curtain should be provided to ensure that the patient cannot be seen from the adjacent corridor or activity space.

8. It may be necessary to consider whether provision is adequate for the special needs of particular ethnic groups if it is likely that there will be a number of patients from such groups.

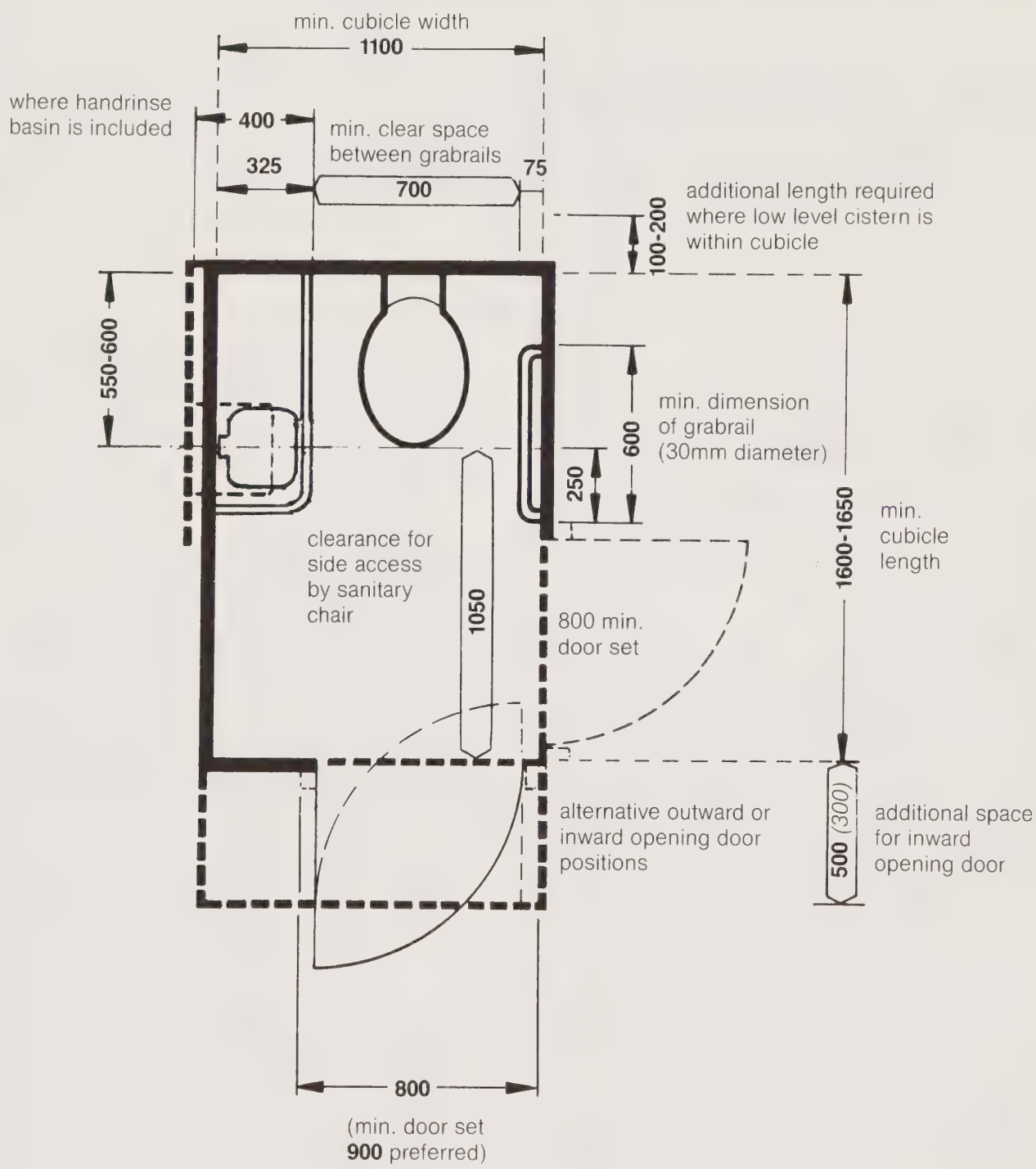
Facilities for independent, assisted ambulant and semi-ambulant patients, (where assistance is minimal) and sanitary chair access

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Patient WC

2H20

with disposal sack
(or handrinse basin)



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Where a handrinse facility is not available inside WC cubicle, one must be available outside cubicle.

2. Where practicable doors should open outwards to give access to an occupied cubicle in case of emergency.

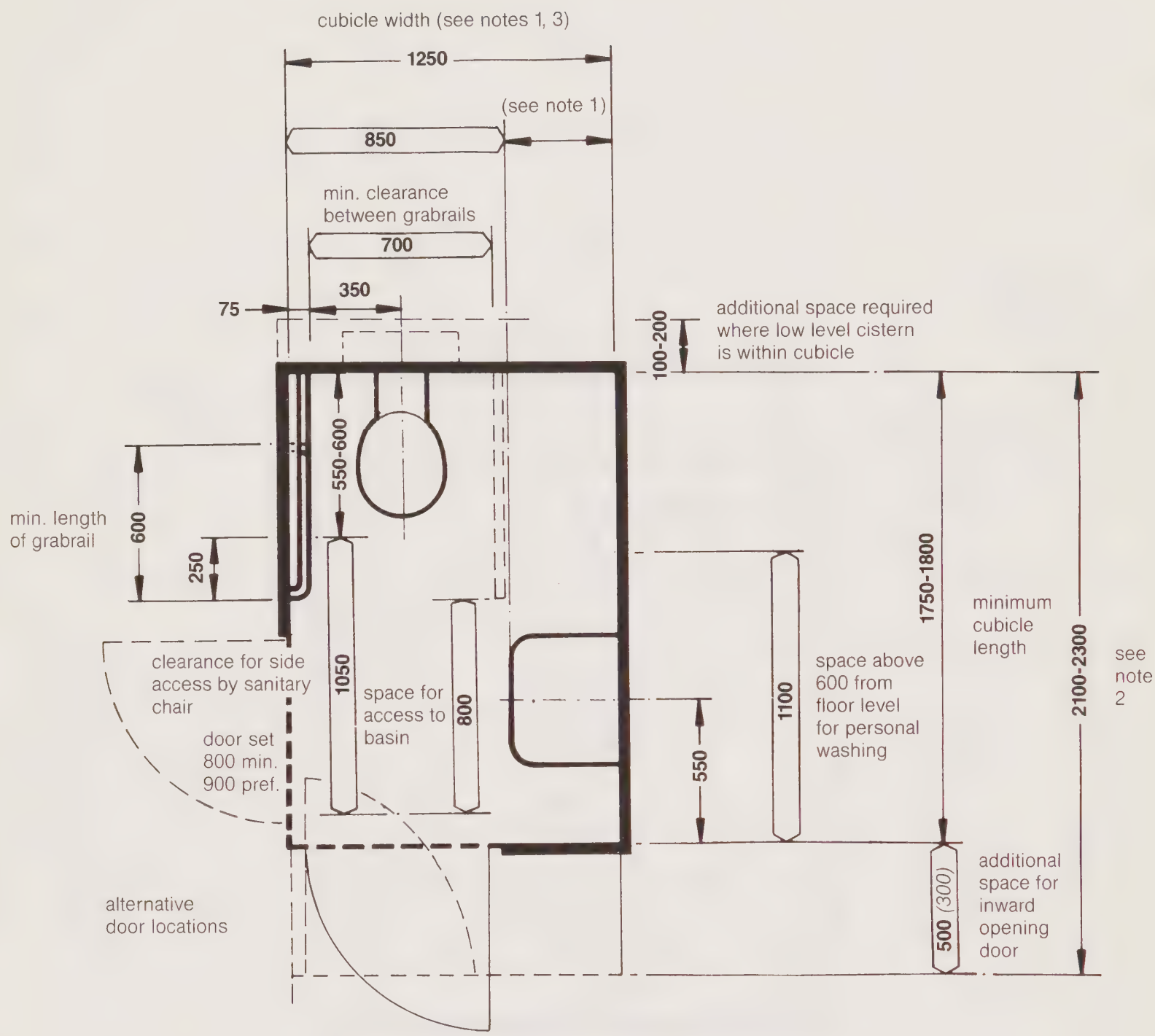
Facility for independent, assisted ambulant and semi-ambulant patients, (where assistance is minimal) and sanitary chair access

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Patient WC

2H19

with basin



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Cubicle width must be increased if a larger lavatory basin is used.

2. Where a fixed grabrail is fitted instead of the hinged, an increased allowance for inward opening doors is necessary giving a minimum cubicle length of 2500 *(2300)*.

3. Cubicle width may be reduced to 1200 if a handrinse basin of 350 projection (or less) is used.

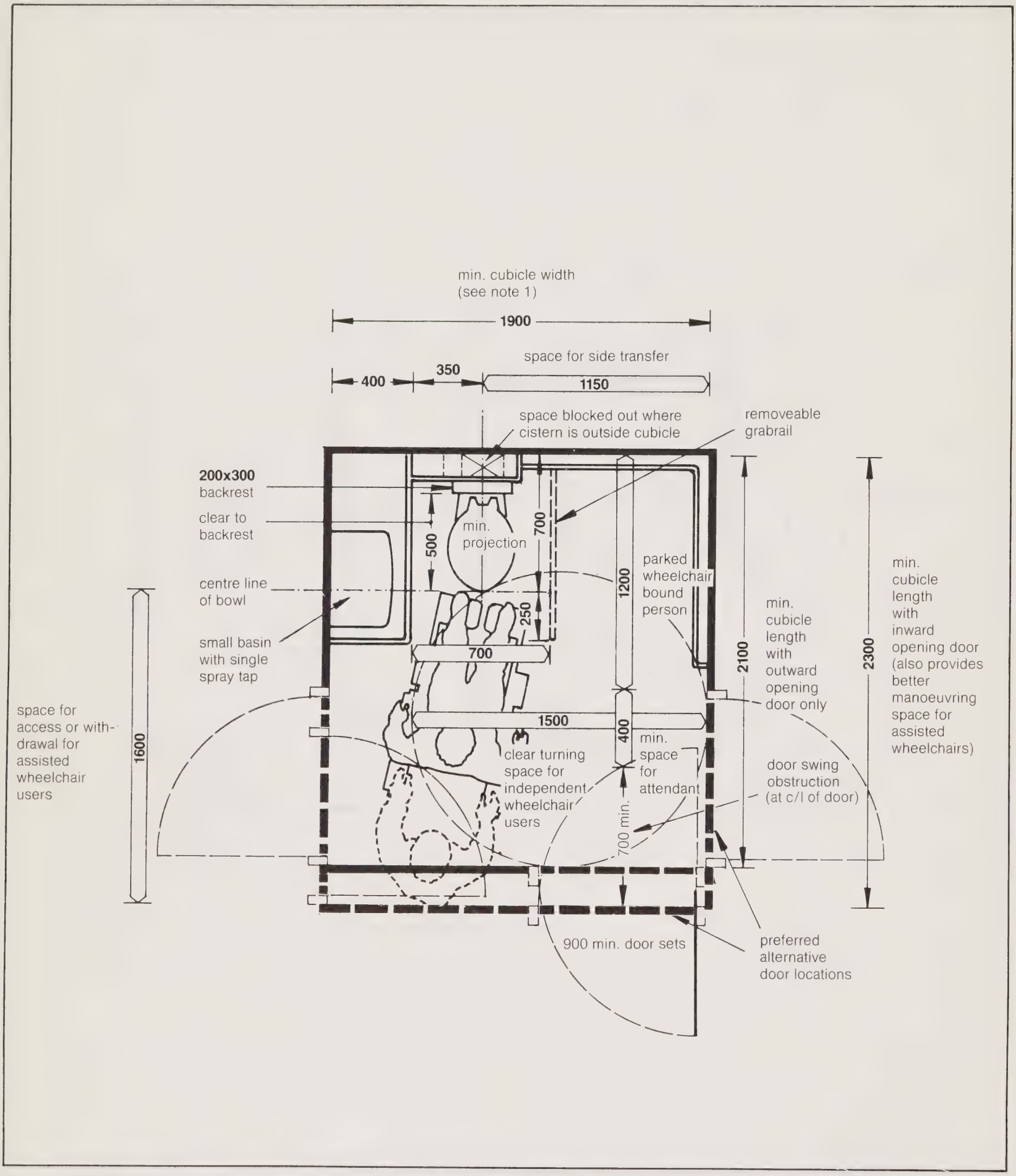
Facilities for independent and assisted wheelchair users

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Patient WC

2H17

with handrinse basin
Wheelchair users (outpatients, visitors etc.)



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Cubicle width must be increased to accommodate larger basin sizes.

2. Where practicable doors should open outwards to give access to an occupied cubicle in case of an emergency.

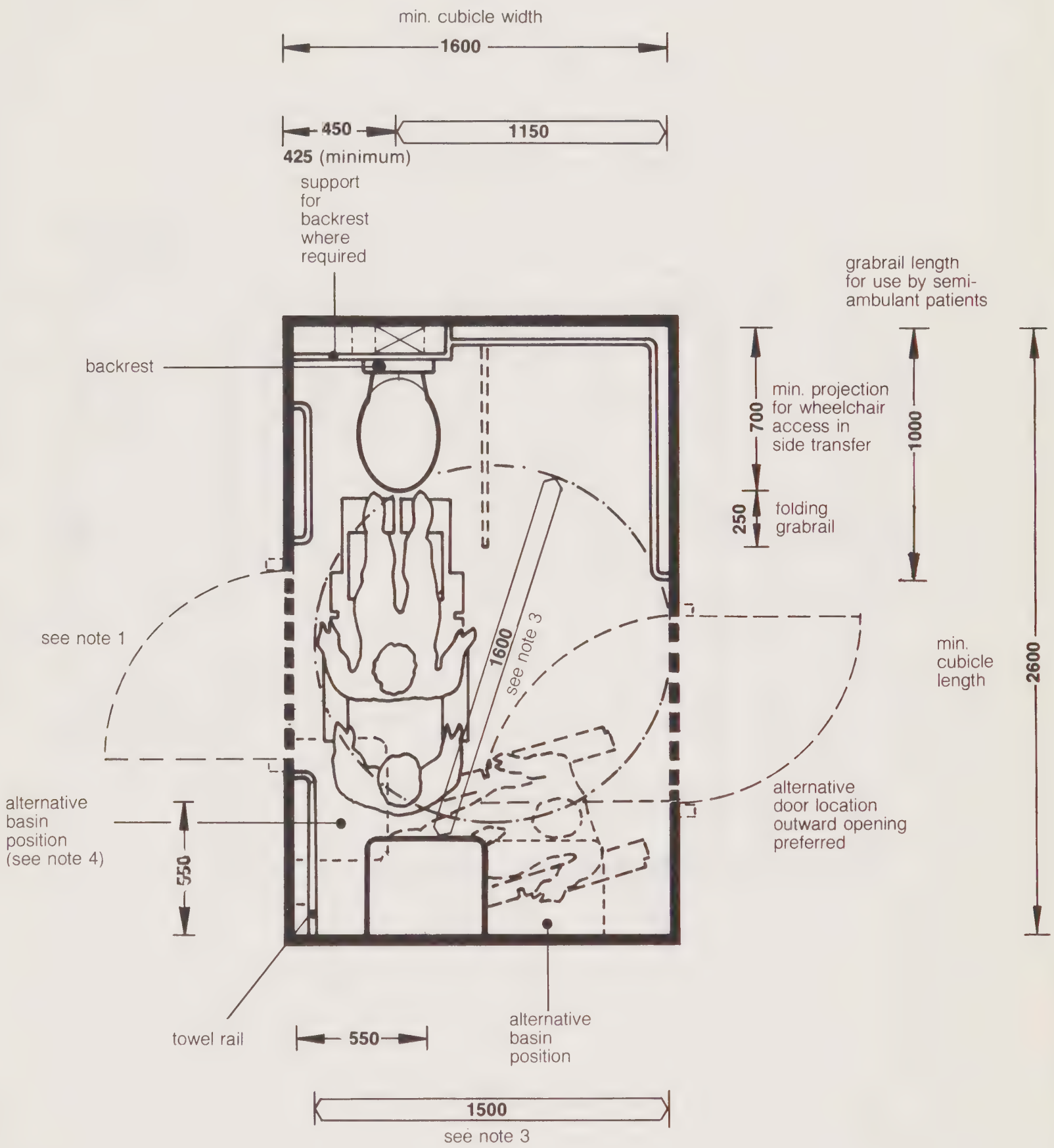
Facilities for independent and assisted wheelchair users

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Patient WC

2H18

with wash basin (wheelchair users)



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:
1. Inward opening door not recommended in this position as it may be obstructed by patient at basin or WC.
2. Overall width of cubicle will not allow satisfactory location of basin and a door to be positioned on this wall.
3. 1600 - satisfactory angled approach to WC and basin possible for assisted wheelchair users.
1500 - turning space for independent wheelchair users.
4. Alternative basin position - with basin in this position minimum space between basin and WC is 1200 resulting in cubicle length of 2700.

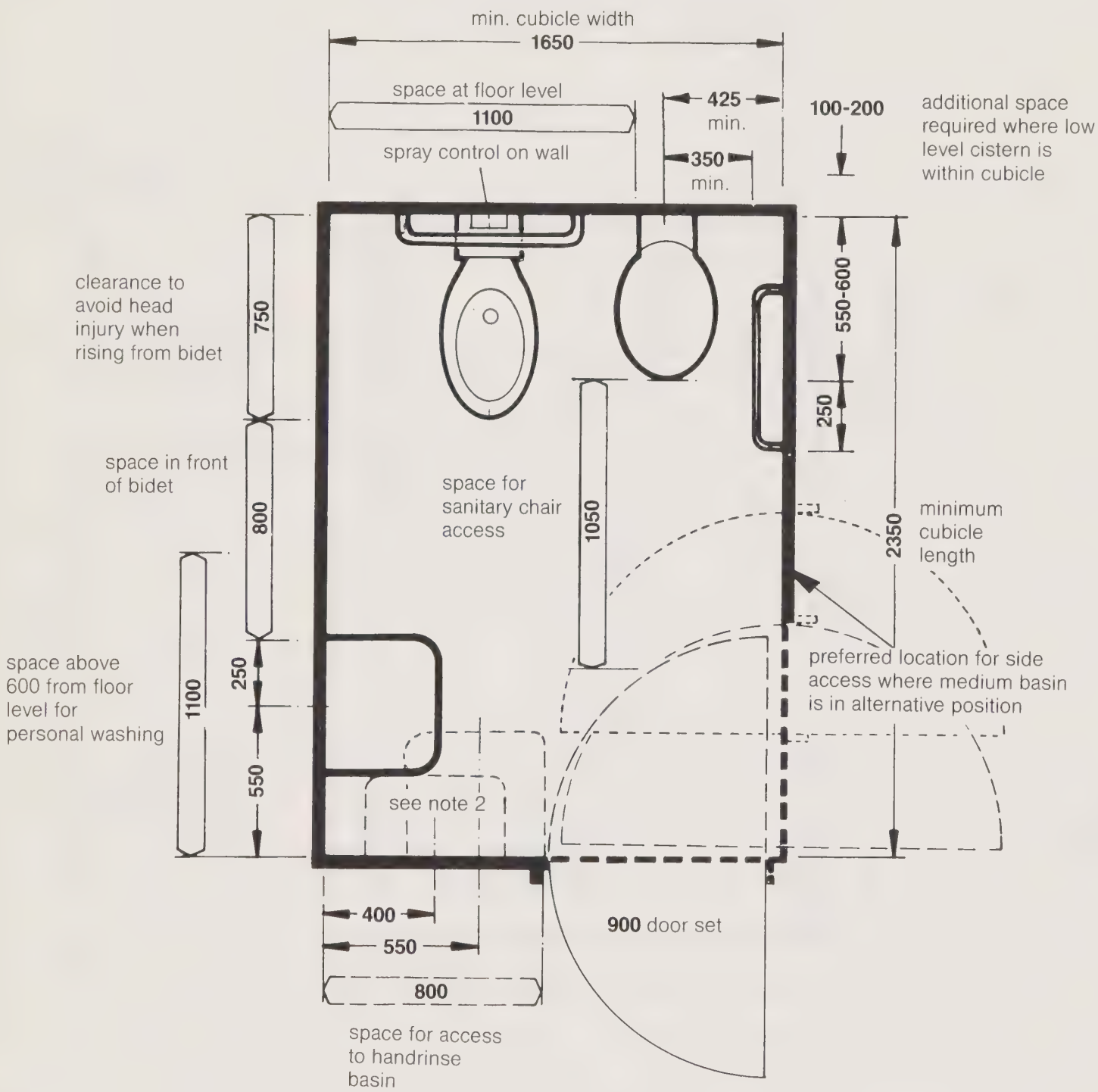
Facilities for independent, assisted ambulant and semi-ambulant patients, (where assistance is minimal) and sanitary chair access

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Patient WC

with bidet and basin

2H21



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Where practicable doors should open outwards to give access to an occupied cubicle in case of an emergency.

2. Alternative position for hand rinse basin only (for medium basin where less satisfactory 80 door set is used) — when basins are in this position, cubicle length may be reduced to 2100 (medium basin) 1950 (handrinse basin).

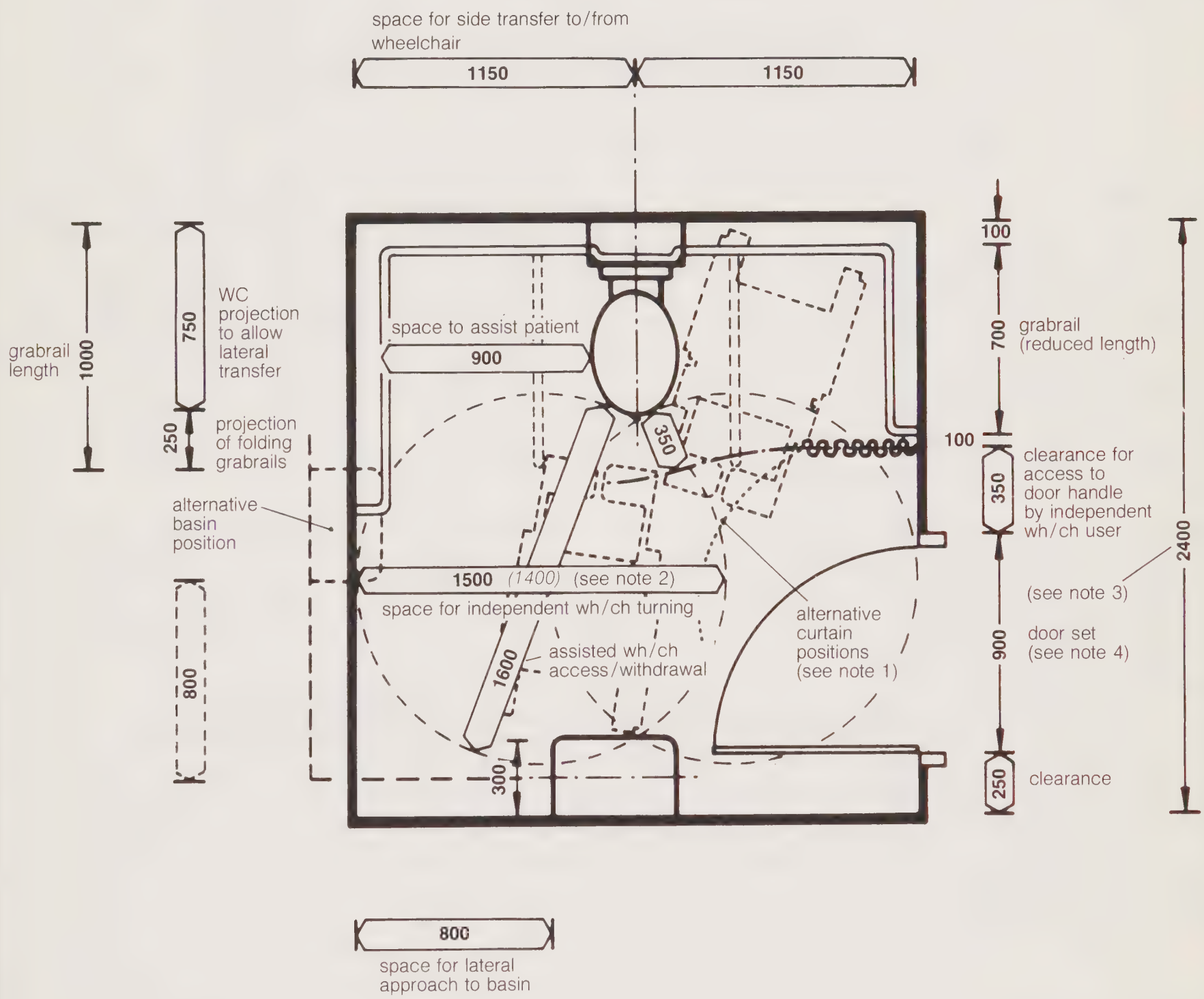
Facilities for independent and assisted wheelchair users. Space is provided each side of WC to facilitate lateral transfer from right or left to/from a wheelchair. The space also allows full assistance by two persons standing either side of WC.

DHSS **Ergonomic data bank:**
Activity space layout data sheet, not to scale.

Patient WC

2H16

with handrinse basin
(dual access to WC)



1350 (1300)

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:

1. A curtain is shown to provide privacy for the patient using the WC when a member of staff enters or leaves the cubicle. The curtain should preferably be operable by independent patient or assisting staff.

2. Where wheelchair footrest (or pushing handles) can pass safely under cantilevered fittings, a turning circle of 1400 may be adequate.

3. Cubicle depth must be increased to 2500 when a medium basin for personal washing is required.

4. Outward opening of door required in the event of an emergency.

'A' Sheet Code

Bathroom — Ambulant Patient V1701

Bathroom — Assisted Patient, Wheelchair V1705

Bathroom — Assisted Patient, with WC V1708

Bathroom/Treatment — Assisted Patient with WC V1714

Definition

Bathroom — Ambulant Patient
An activity space with facilities for an ambulant patient, who may require minimal assistance, to have a bath.

Bathroom — Assisted Patient
An activity space with facilities for a patient who may be ambulant, possibly using walking aids, in a wheelchair or on a mobile hoist, needing the help of staff in bathing.

Bathroom — Assisted/Treatment
An activity space with facilities for a patient who may enter the bathroom in a wheelchair, on a mobile hoist, or in a bed, needing the help of staff in bathing and associated activities, and where staff may also carry out certain treatments.

NOTE: In view of the need to provide space for all- round staff access to a patient on a hospital bed, the overall room area is significantly greater than that normally provided in an assisted bathroom; consequently it is recommended that the treatment bathroom should be provided only when it is specifically required for the department involved as indicated in individual Health Building Notes.

General points

1. A WC is often used before or after bathing, particularly in certain medical and surgical circumstances, and one should be provided in all bathrooms, as well as a hand-wash basin.

2. It is important to ensure that the bathroom temperature is warm enough to meet all patients' needs (21°–22°C).

3. Adequate ventilation is essential to avoid a build-up of heat and humidity which can create an uncomfortable environment for patients and staff.

4. Spillages of water and talcum powder etc are inevitable and the floor surface should be slip-resistant.

5. The patient/nurse call system should be easily identifiable and located so that it can be operated by the patient lying in the bath.

6. It may be necessary to consider whether provision is adequate for the special needs of particular ethnic groups if it is likely that there will be a number of patients from such groups.

Specific points

Bathroom — Ambulant Patient
The decision whether or not this type of bathroom is appropriate for in-patient accommodation, where the physical dependency of patients is increasing, must be made at project level in the light of the clinical specialty being catered for.

Assisted and Treatment Bathrooms
1. To enable staff to bath patients without stooping it is advisable that the rim height of the bath should be 800mm from floor level. This can be achieved by mounting the bath on a plinth which should be designed for use with a mobile hoist. This solution, whilst convenient for staff bathing patients, precludes use of the bath by independent patients or those requiring minimal assistance. It is therefore less versatile in use. In order to maximise use of this bathroom and in the interests of staff welfare (see paragraph 11) it is recommended that a variable height bath be provided in assisted/treatment bathrooms.

2. The provision of a shelf for holding a small supply of clean clothing and other items used in bathing procedures is desirable.

3. For the privacy of patients the bathroom doors should be screened by curtains.

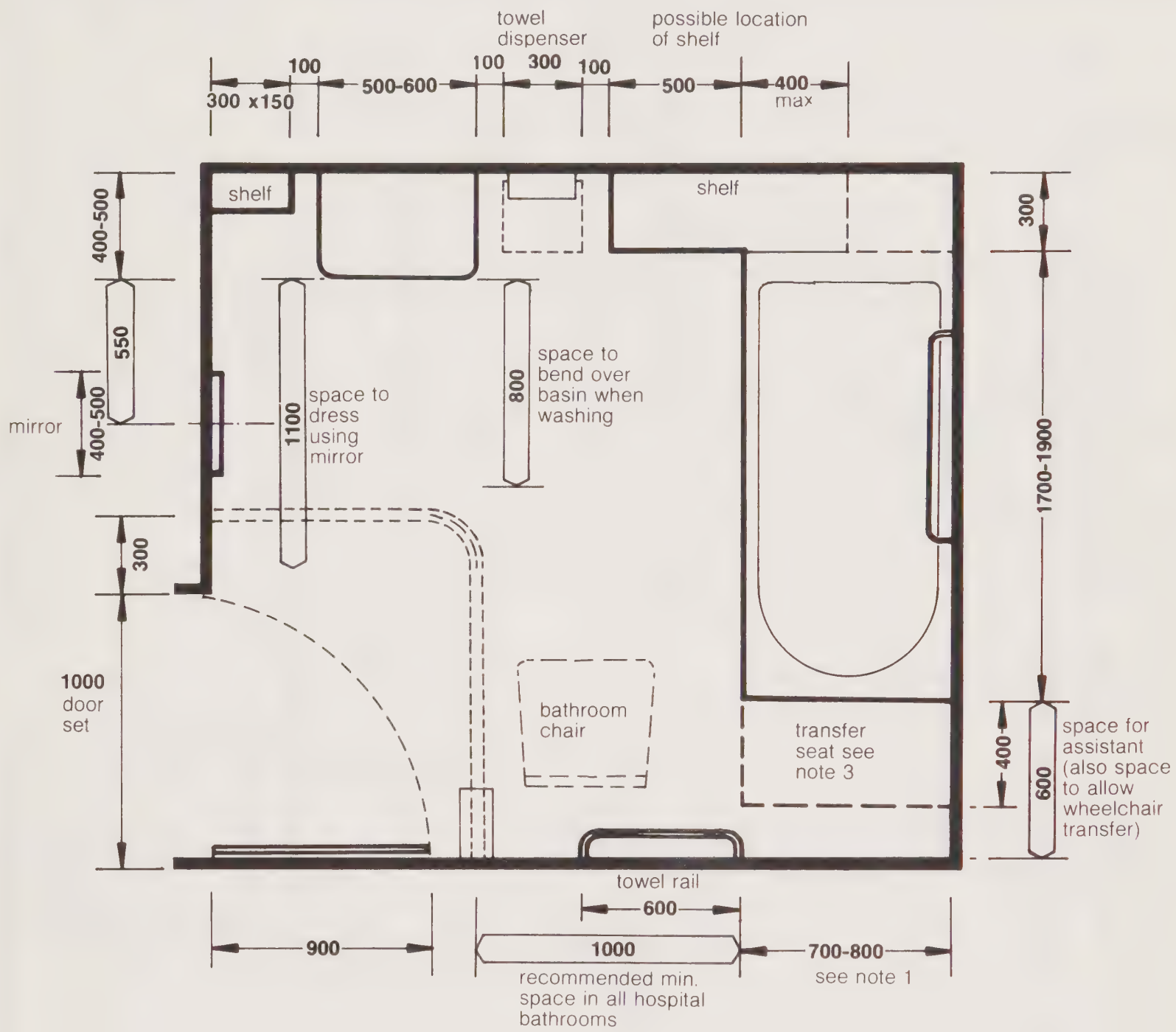
Facilities for ambulant patient, who may require minimal assistance to have a bath or use wash basin. (Also independent wheelchair use).

DHSS **Ergonomic data bank:**
Activity Space example layout, not to scale.

Bathroom

2H2

ambulant and wheelchair patients



1350 *(1300)*

Preferred minimum *(Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:
1. An 800 wide bath is preferred, as a 700 bath is restrictive for larger adult users.

2. 300 deep shelving for holding towels clean clothing etc is useful. Some shelving at side of bath is also useful to place shampoo, powder, washbag etc.

3. A drop down transfer is desirable to allow the bathroom to be used by wheelchair users and for rehab training.

4. To maintain the privacy of patients when in the bath it is desirable that access doors be screened and that these should not impede access by assisting staff

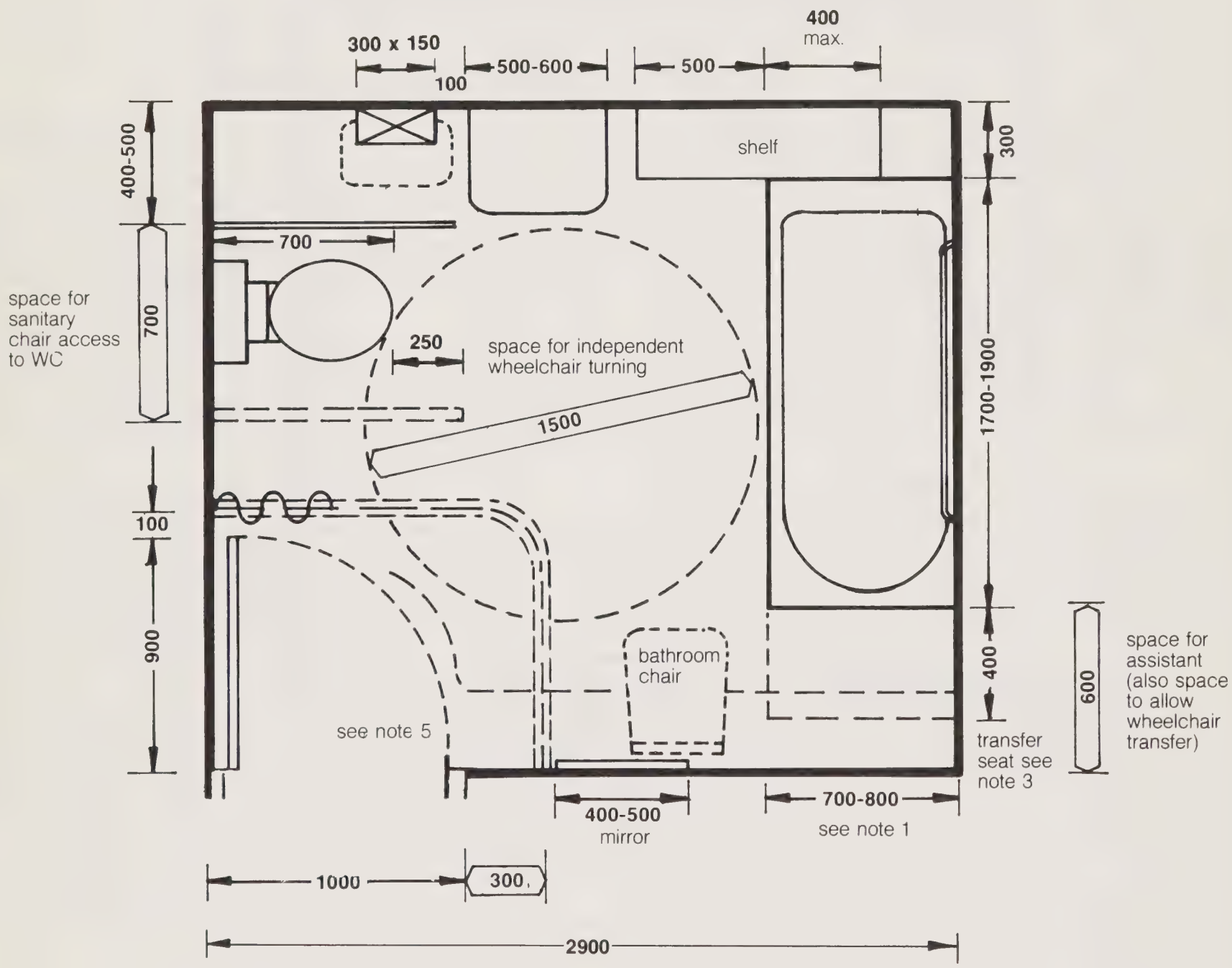
Facilities for ambulant patient, who may require minimal assistance to have a bath, use WC, or wash basin. (Also independent wheelchair use).

DHSS **Ergonomic data bank:**
Activity Space example layout, not to scale

Bathroom

2H1

(ambulant and wheelchair patients)



1350 (1300)

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes).*

Notes:

1. An 800 wide bath is preferred, as a 700 bath is restrictive for larger adult users.

2. 300 deep shelving for holding towels clean clothing etc is useful. Some shelving at side of bath is also useful to place shampoo, powder, washbag etc.

3. A drop down transfer is desirable to allow the bathroom to be used by wheelchair users and for rehab training.

4. To maintain the privacy of patients when in the bath it is desirable that access doors be screened and that these should not impede access by assisting staff.

5. Room size can be reduced as shown by omitting shelf at tap end of bath.

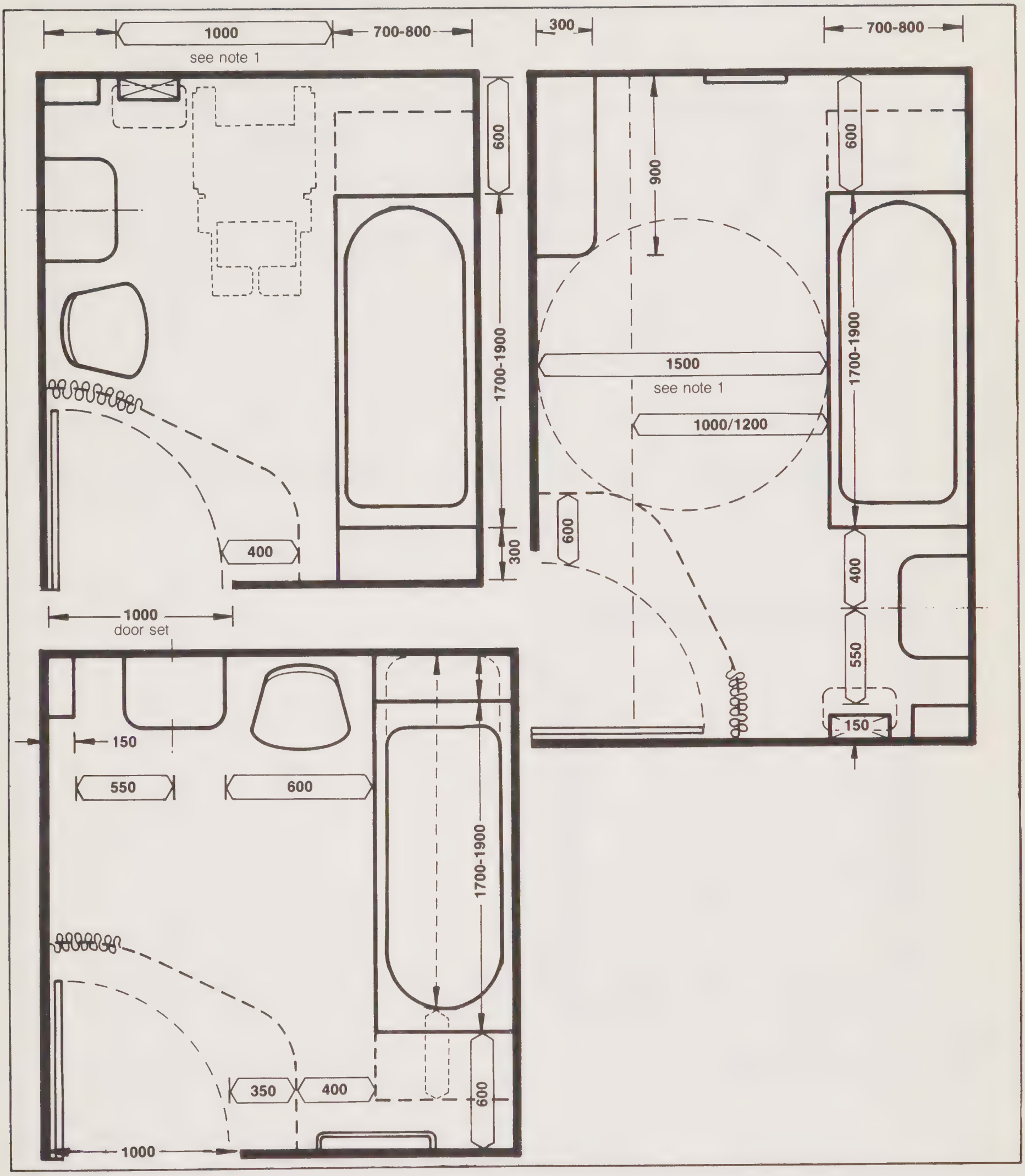
Alternative layouts.

Bathroom

2H3

(ambulant and wheelchair patient)

DHSS **Ergonomic data bank**
Activity Space example layout, not to scale.



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:

1. To accommodate wheelchair turning space at side of bath should be 1500. Wheelchair access is possible where this space is 1200 but 180° turns will not be possible (ie. user must back into bathroom to use transfer seat). Where space is only 1000 the bathroom will accommodate ambulant users only.

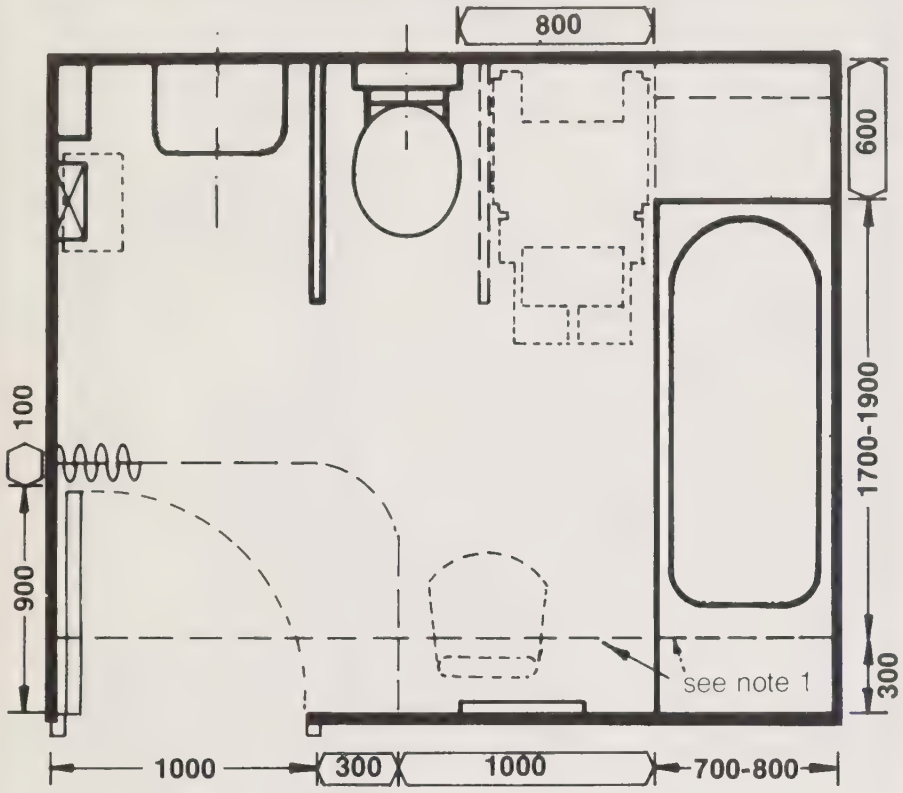
Alternative layouts

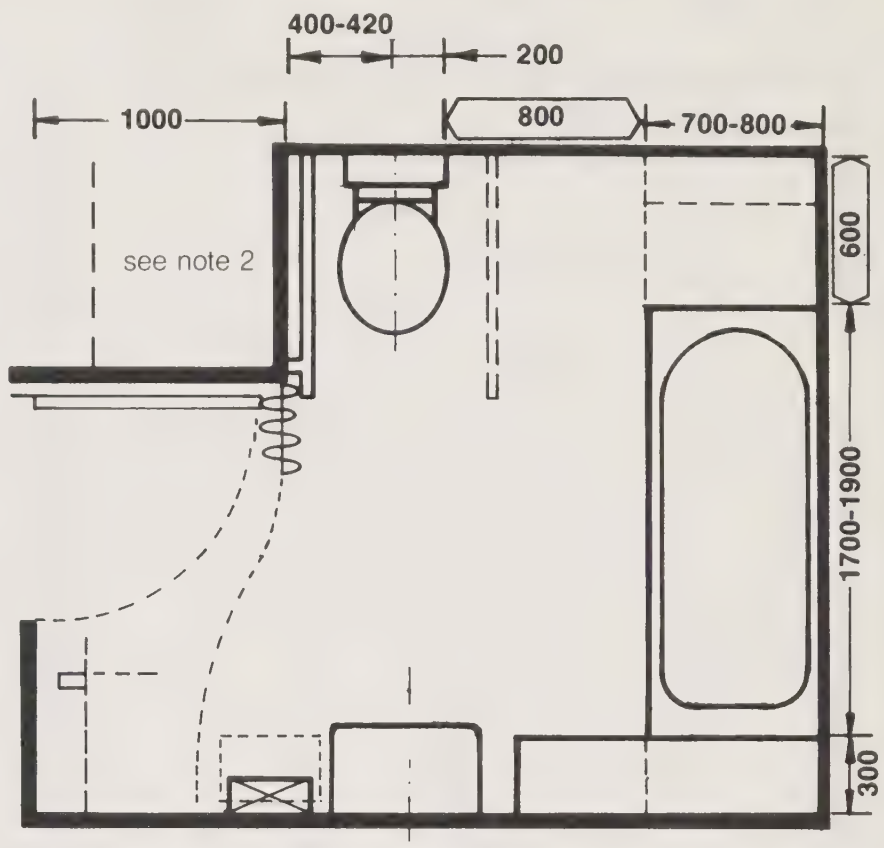
Bathroom

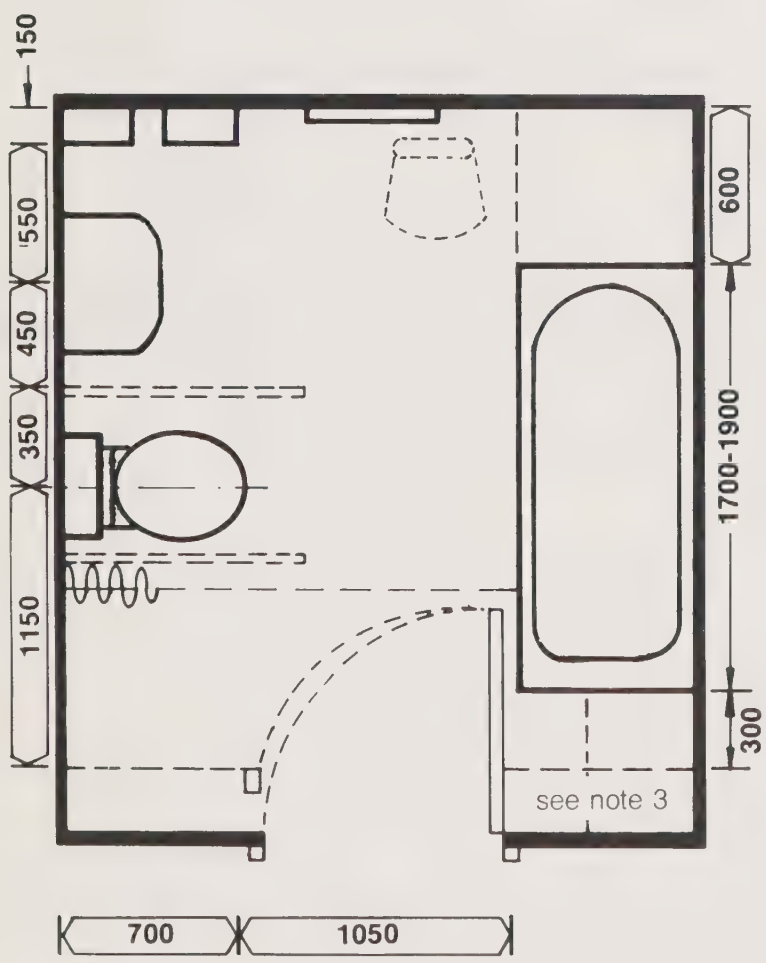
2H4

(ambulant and wheelchair patients)

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale







1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Room size may be reduced as shown by omitting shelf at the end of bath.
2. Where room is squared off full access to both sides of WC is provided.
3. Room size can be reduced as shown by omitting curtain screen.

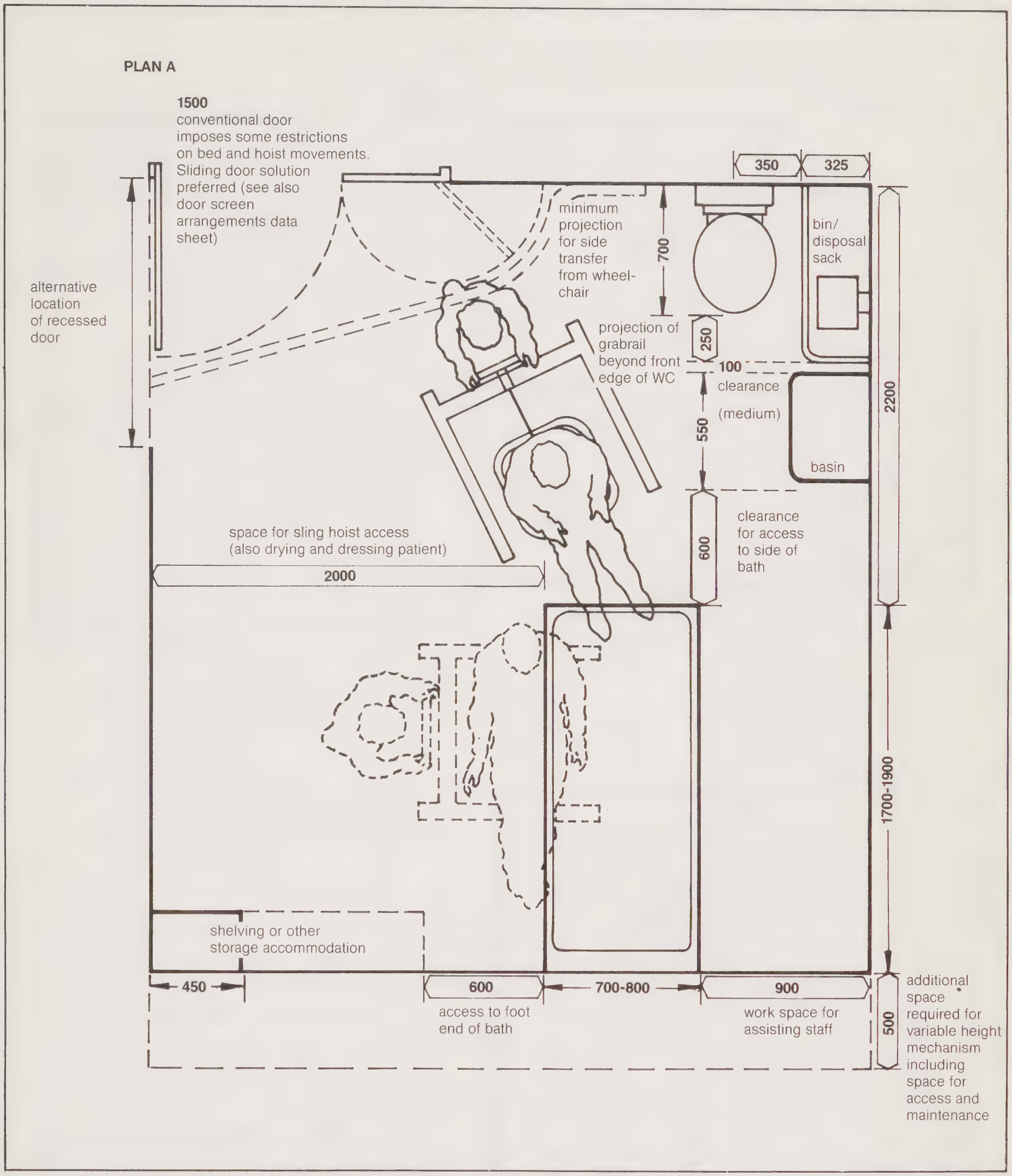
An activity space with facilities for bathing and drying and dressing patient, including use of patient hoist and assisted use of wc and basin
(See also alternative layouts B, C & D)

DHSS **Ergonomic data bank:**
Activity space data sheet, not to scale

Assisted Bathroom

2H8

with WC and personal washing facility



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Alternative arrangements (B, C and D)

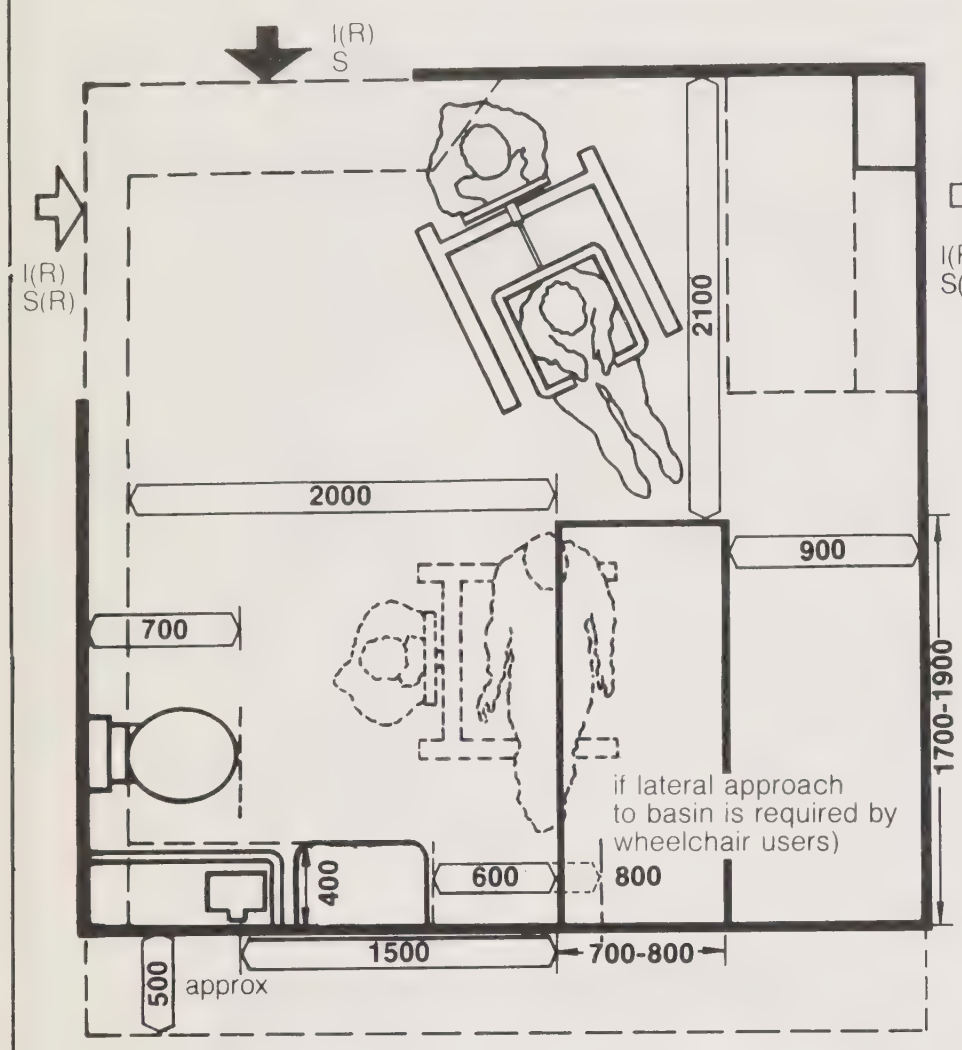
2H9

Assisted Bathroom

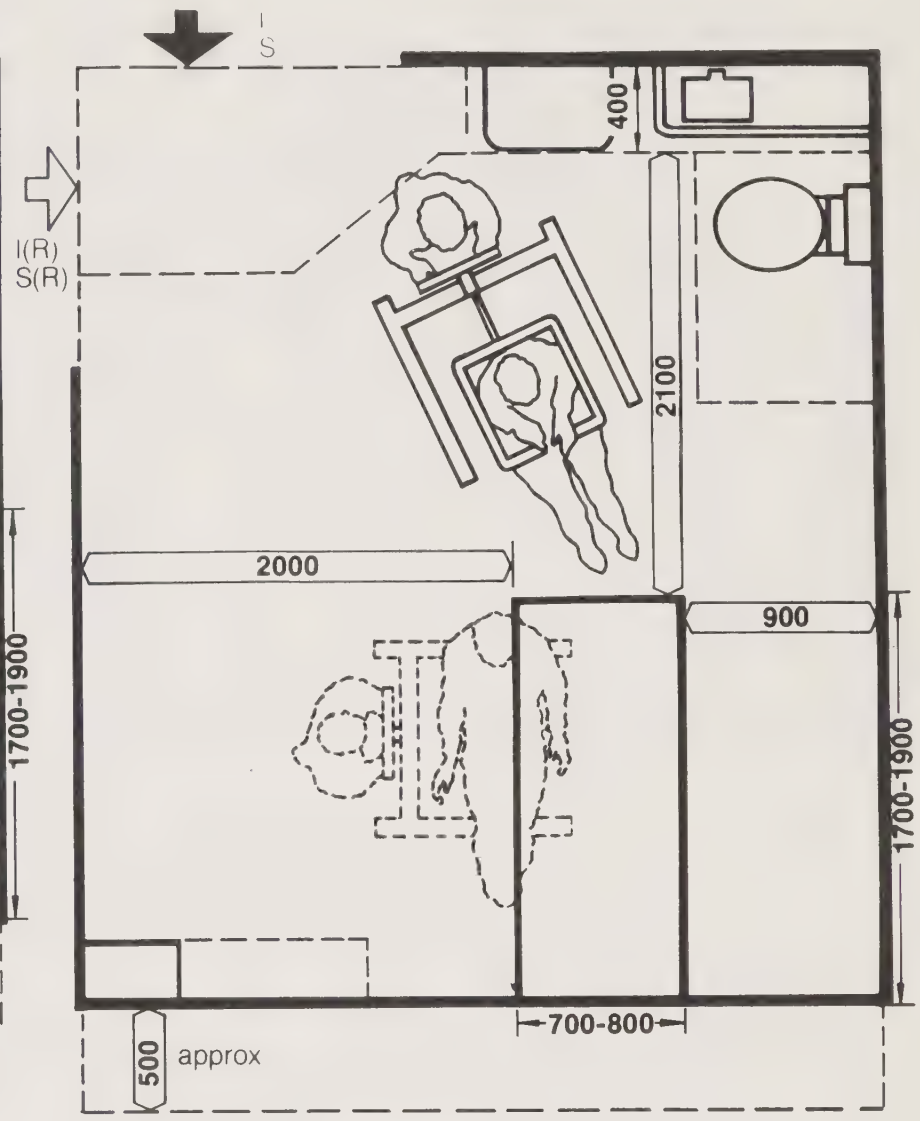
With WC and personal washing facility

DHSS **Ergonomic data bank:**
Activity Space example layout, not to scale.

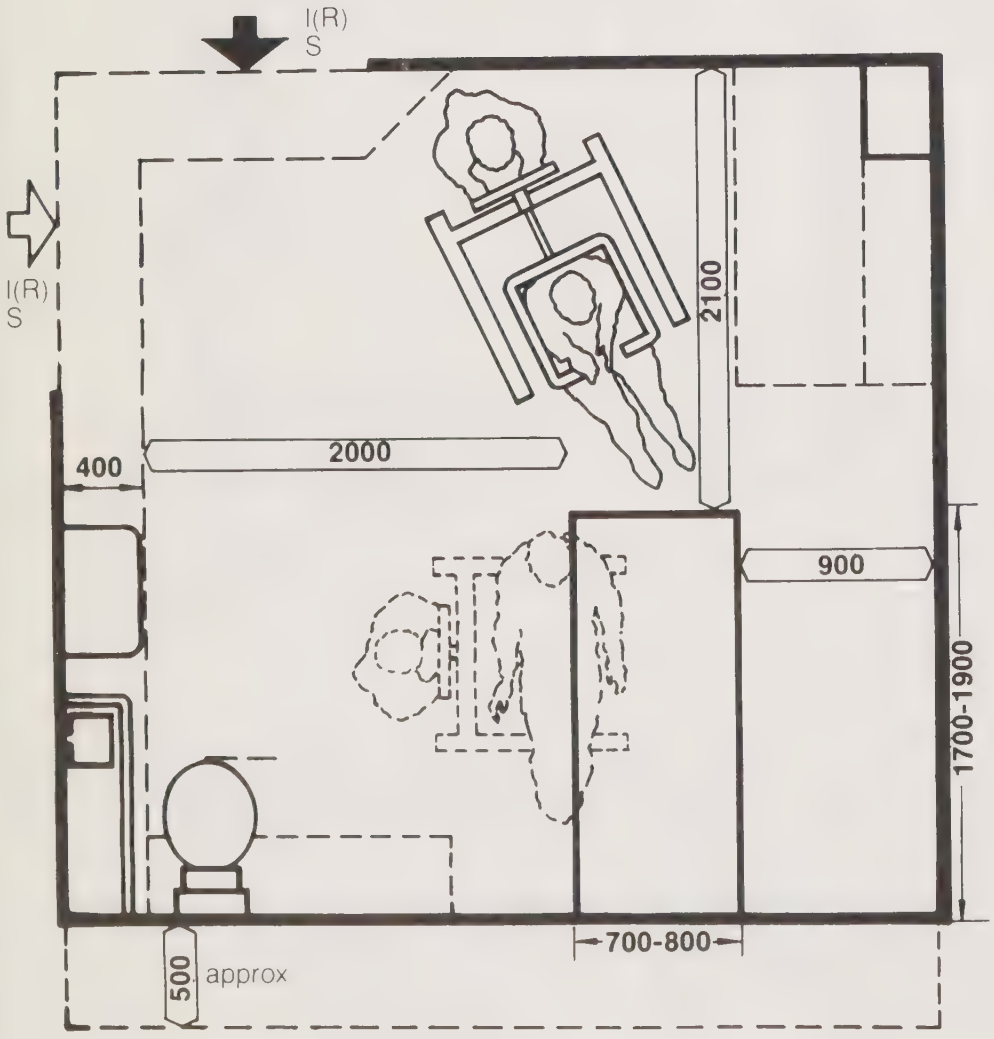
Plan B



Plan C



Plan D



NOTES

See also Door screen arrangements data sheet

Key

= preferred position of access door(s)

= alternative position of access door(s)

I = Inward opening doors
I(R) = Inward opening doors (recessed)
S = Sliding doors
S(R) = Sliding door recessed
(all 1500 door sets)

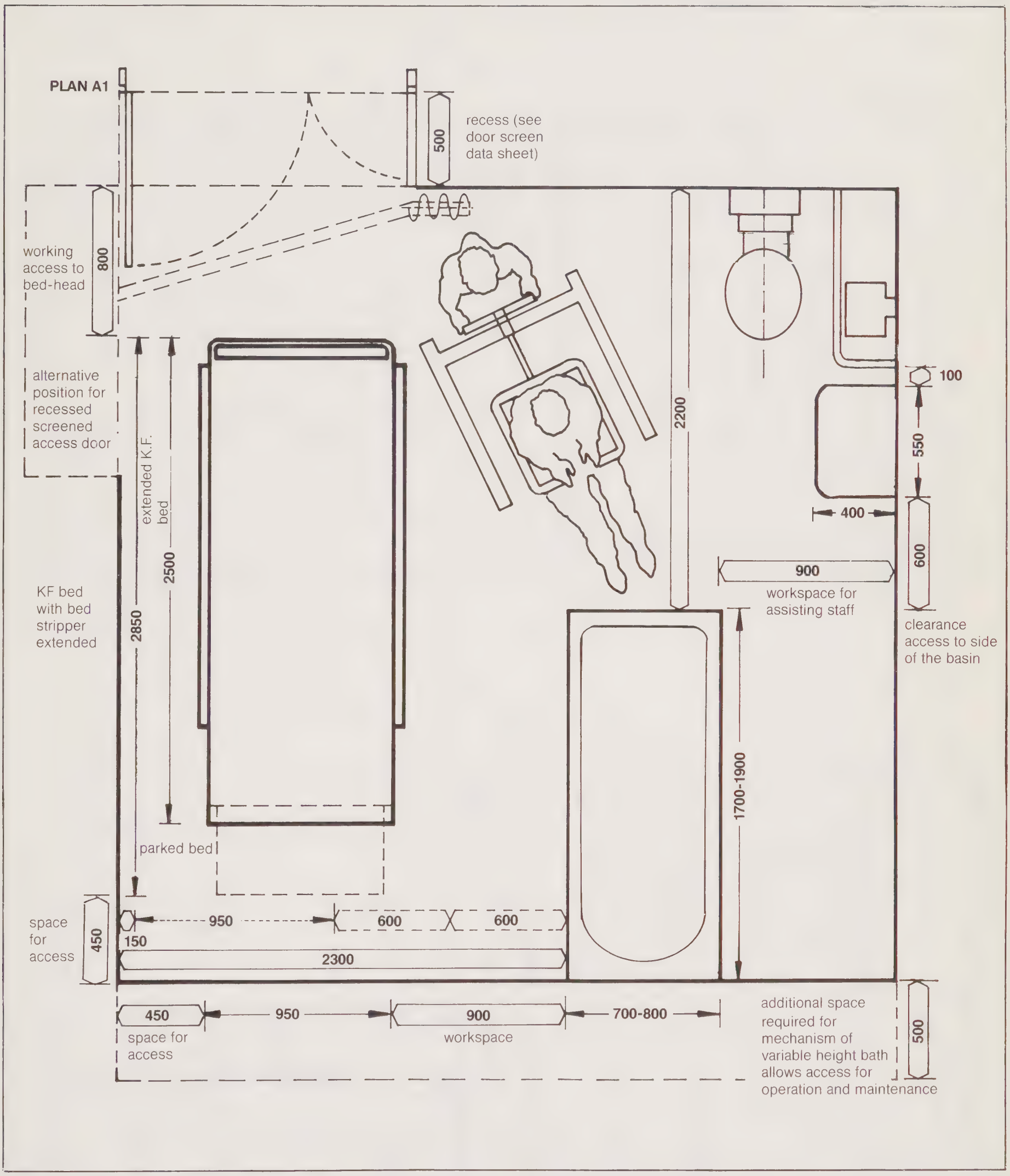
An activity space with facilities for a patient who may enter the bathroom in a wheelchair, on a hoist or in bed needing the help of staff in bathing, staff may also carry out certain treatments (see also alternative layouts A-D)

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

2H5

Treatment Bathroom

(with WC and personal washing facility)



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Alternative arrangements

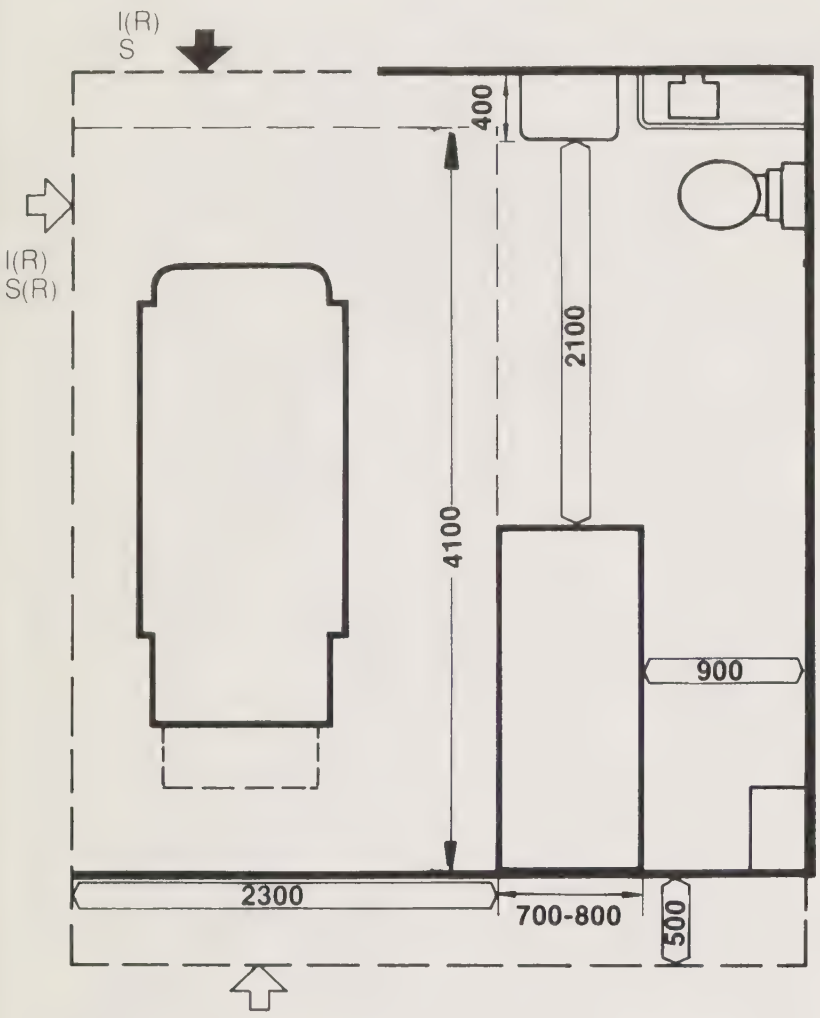
DHSS **Ergonomic data bank:**
Activity Space example layout, not to scale

Treatment Bathroom

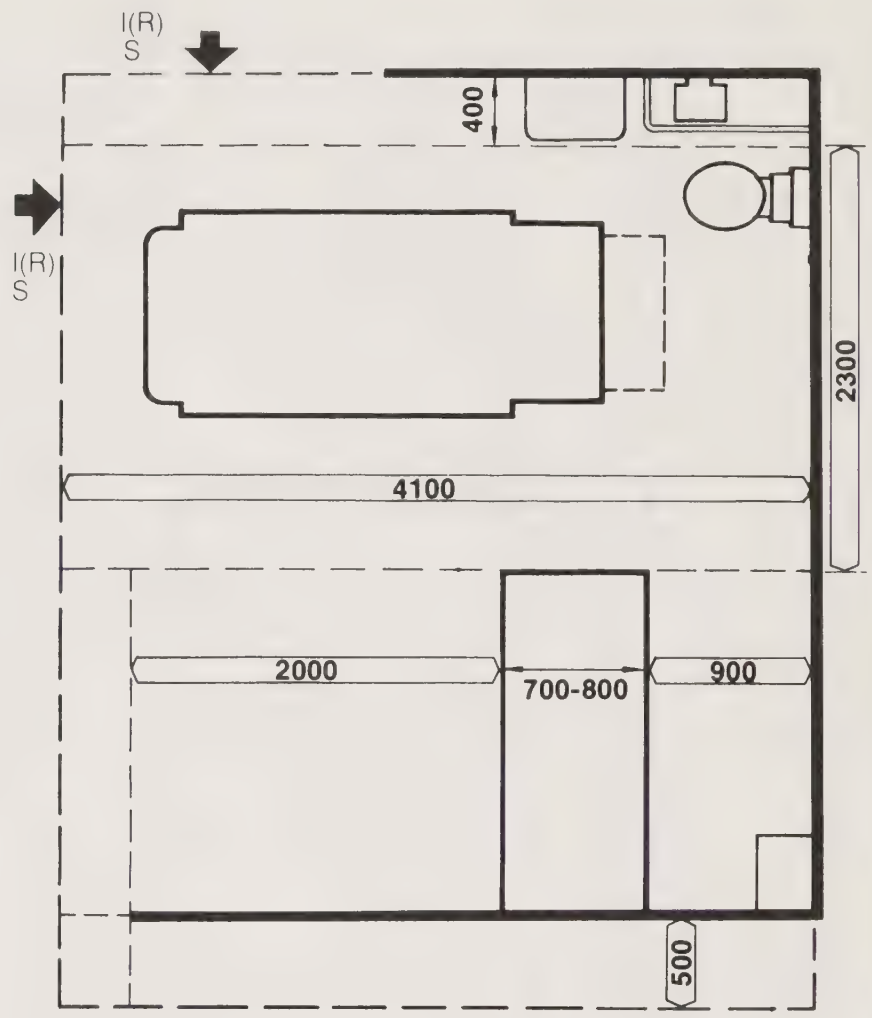
2H7

With WC and personal washing facility

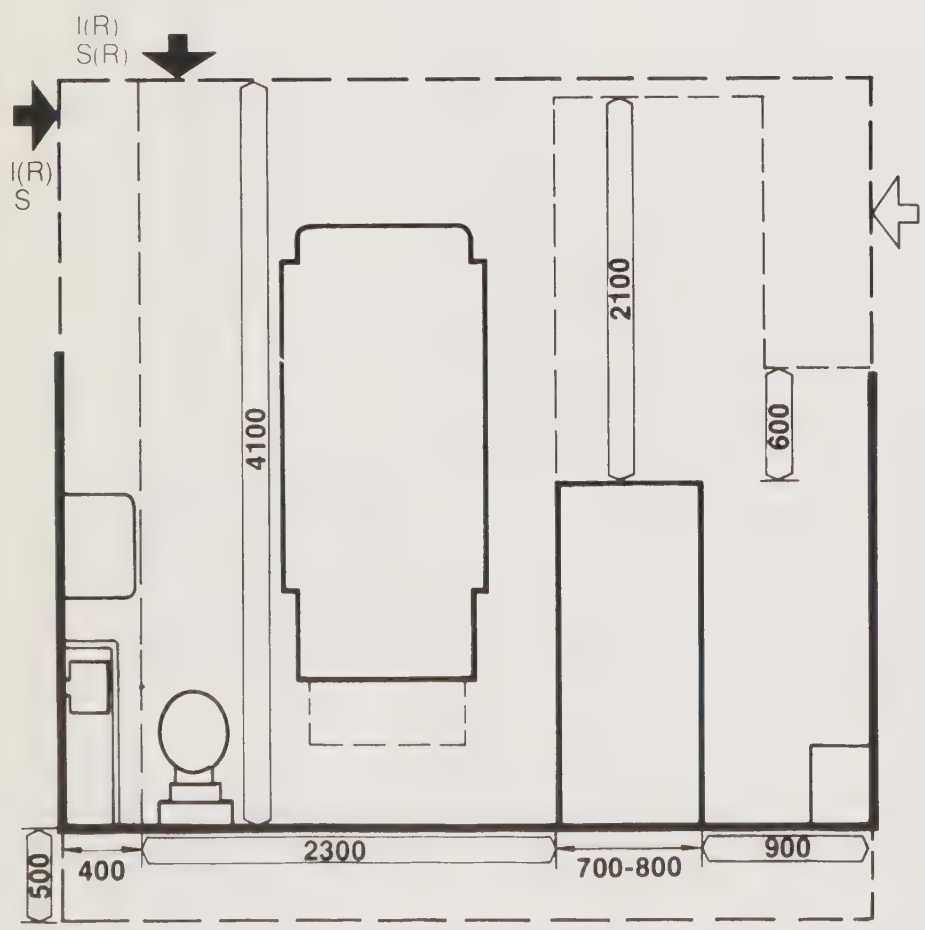
Plan C1



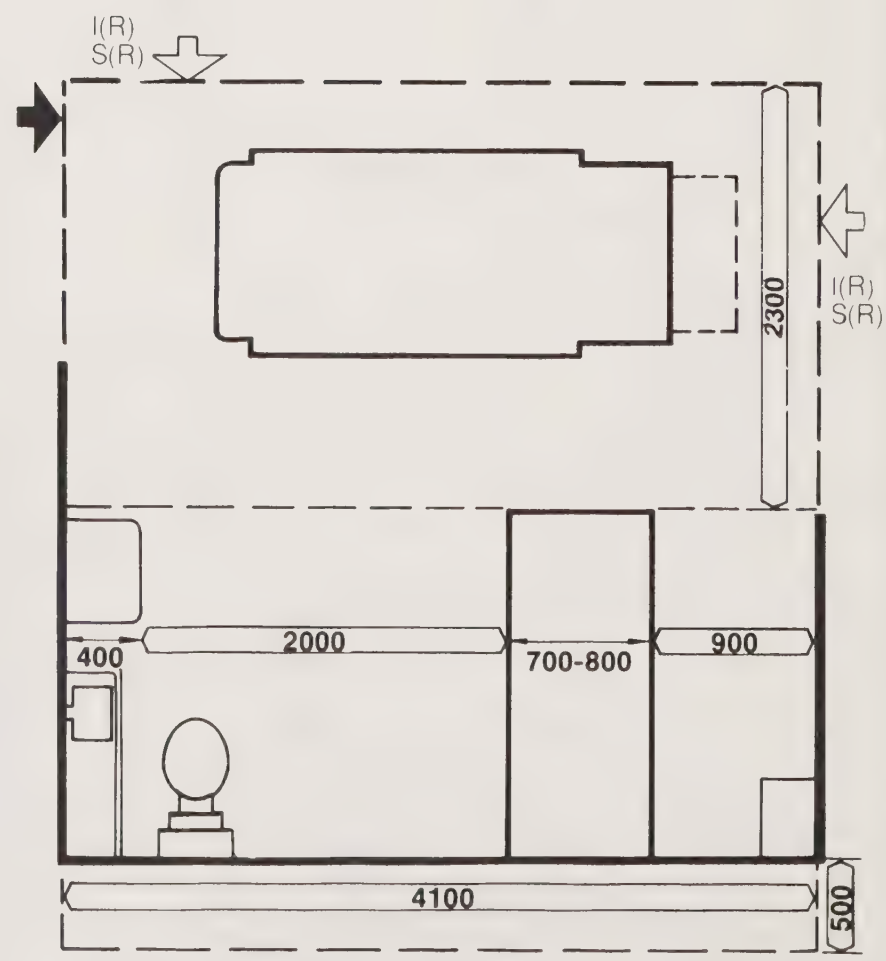
Plan C2



Plan D1



Plan D2



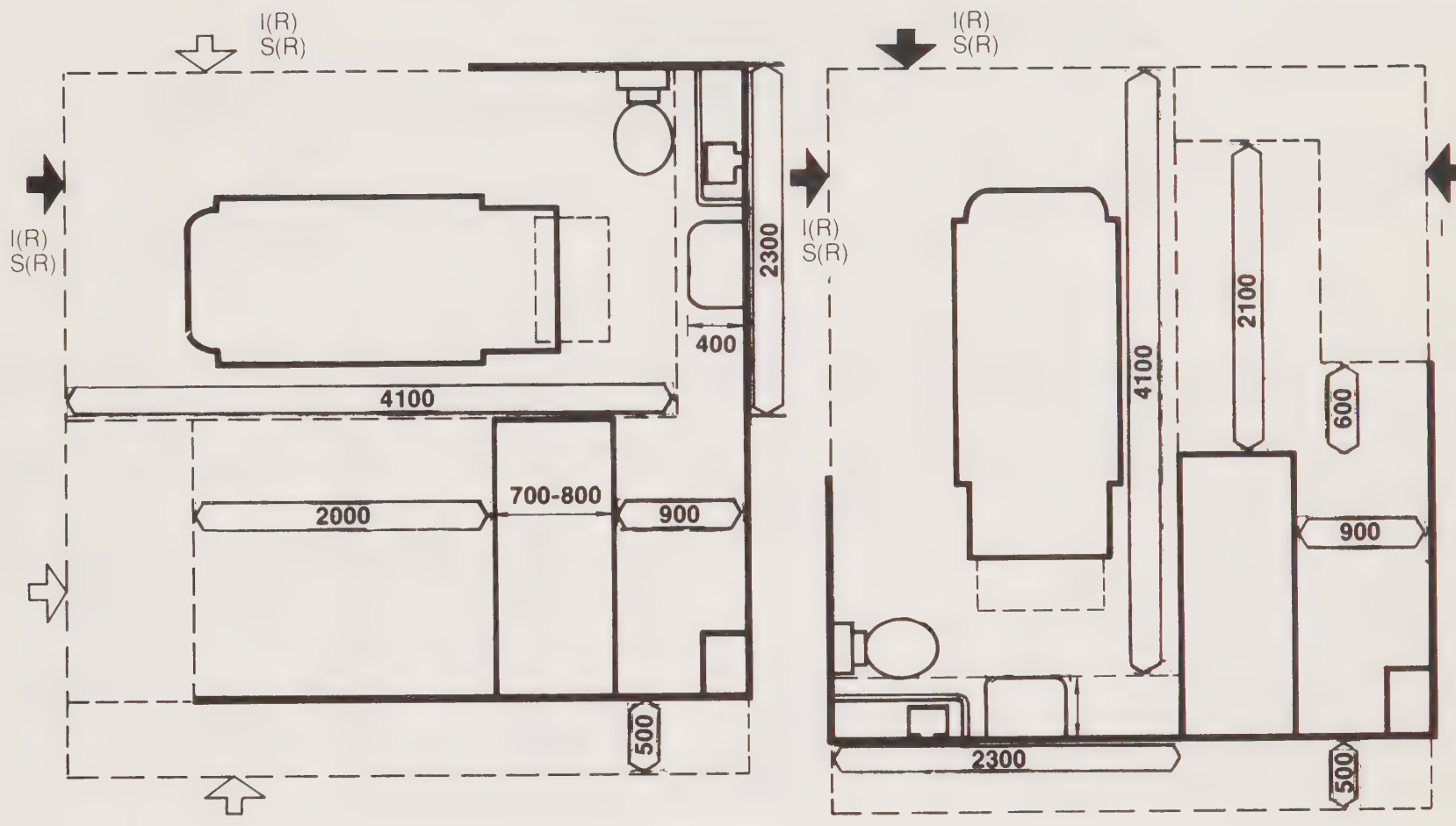
Alternative arrangements

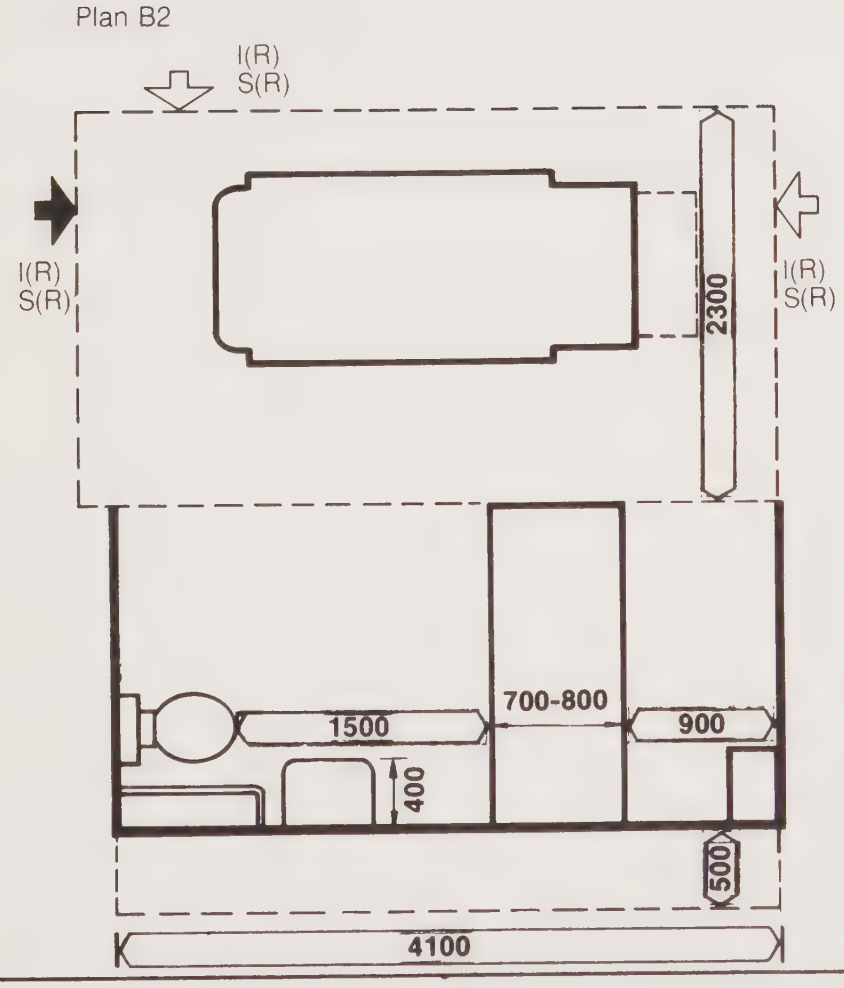
Treatment Bathroom

2H6

with WC and personal washing facility

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale





Key:

preferred position(s) for access doors

alternative position(s) for access doors

I = Inward operating door
I(R) = Recessed inward opening door
S = Sliding door
S(R) = Recessed sliding door

1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use; see explanatory notes)*

'A' Sheet Code

Shower — Ambulant Patient with Handwash V1606

Shower — Assisted Patient with Handwash V1608

Shower — Assisted Patient with Handwash & WC V1612

Shower — Staff V1616

Definition

1. *Shower — Ambulant Patient*
An activity space with facilities for an ambulant patient, who may require minimal assistance, to shower and use a wash basin.

2. *Shower — Assisted Patient*
An activity space with facilities for a patient, who may be in a wheelchair or sanitary chair, needing the help of staff to shower and use a wash basin from a seated position. This facility will also be suitable for independent wheelchair users.

3. *Shower — staff*
An activity space with facilities for staff to shower.

General Points

1. Showers in health buildings should be designed to meet the needs of patients and particular attention should be paid to the problems of access, mobility, physical stability and generally reduced activity and strength.

2. Access to and movement within the wet and dry areas of the cubicle should enable staff to assist in showering the patient safely and effectively whilst remaining dry themselves. Hand held and adjustable height shower heads are essential and should be provided. Fixed overhead showers are inappropriate.

3. Showers should be supplied with blended water via a thermostatic mixing valve under user control. The valve should be pre-set and locked to limit the maximum temperature of blended water delivered at the spray, although a lower flow temperature will be available at the user's choice. The controls should be accessible to staff from the dry area.

4. The patient/nurse call system should be located just within the wet area, adjacent to the shower control. The cord should be provided to skirting level, to be within reach of a patient who may have fallen or collapsed.

5. The floor surface throughout should be slip-resistant, and the gradient of the wet area to the waste outlet should be 1:60. The waste outlet must be effective in discharging water to prevent ponding.

6. There should be a continuous grab rail around the wet area wall.

7. In the dry area coat hooks and towel rails should be within reach of the patient using the seat.

8. It is important to ensure that the cubicle temperature is warm enough to meet all patients' needs (21°–22°C) and ventilation must be sufficient to avoid a build-up of heat and humidity. The extract should not be located directly above the user.

9. Ideally, a WC should be provided within the shower cubicle.

10. It should be possible for staff to gain easy entrance to an occupied cubicle in case of emergency.

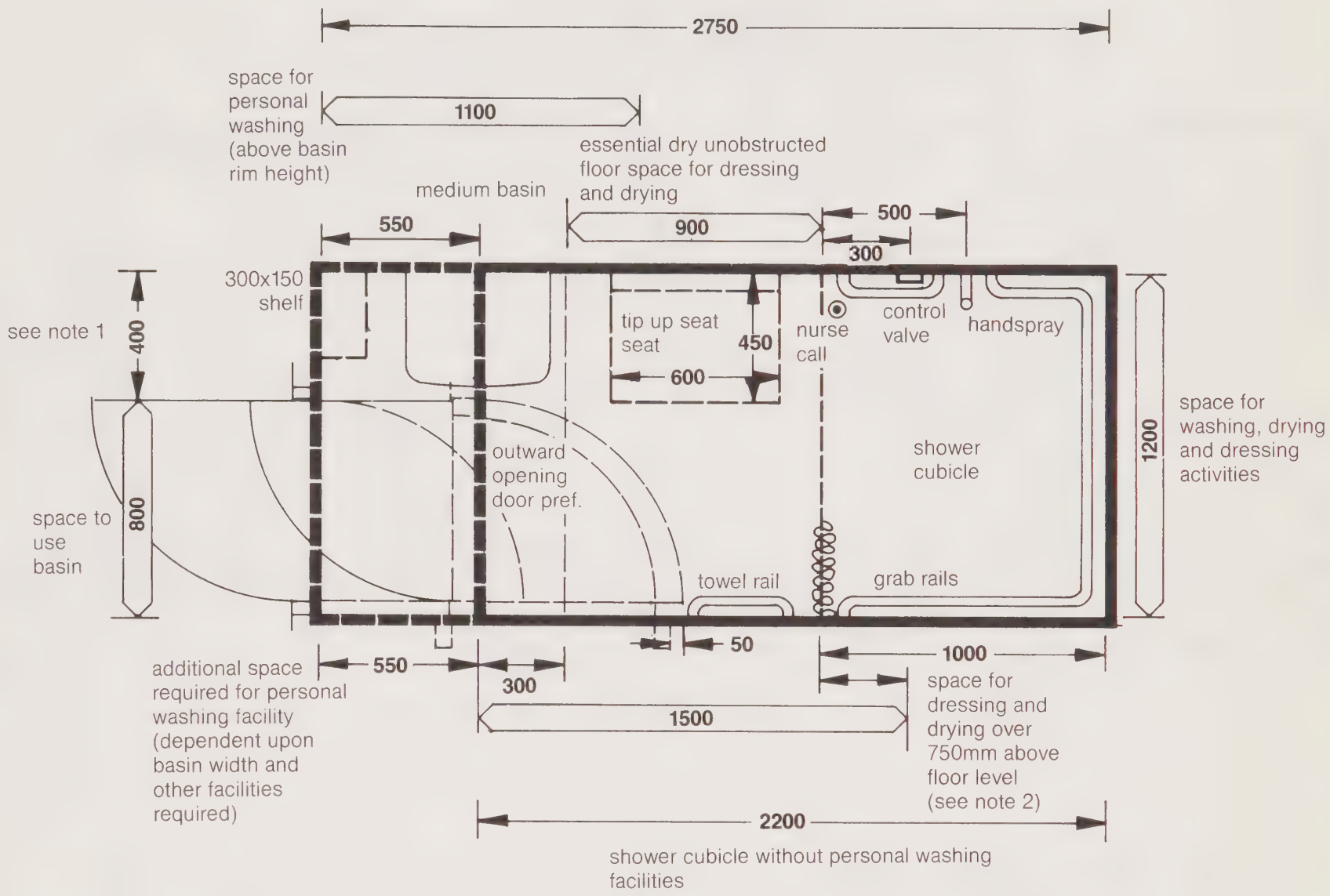
Facilities for ambulant patients, who may require minimal assistance to shower and use a wash basin

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Shower

with wash basin
(ambulant patients)

2H15



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Outward opening doors are preferred, as inward opening doors obstruct the patient when using the basin or changing/drying.

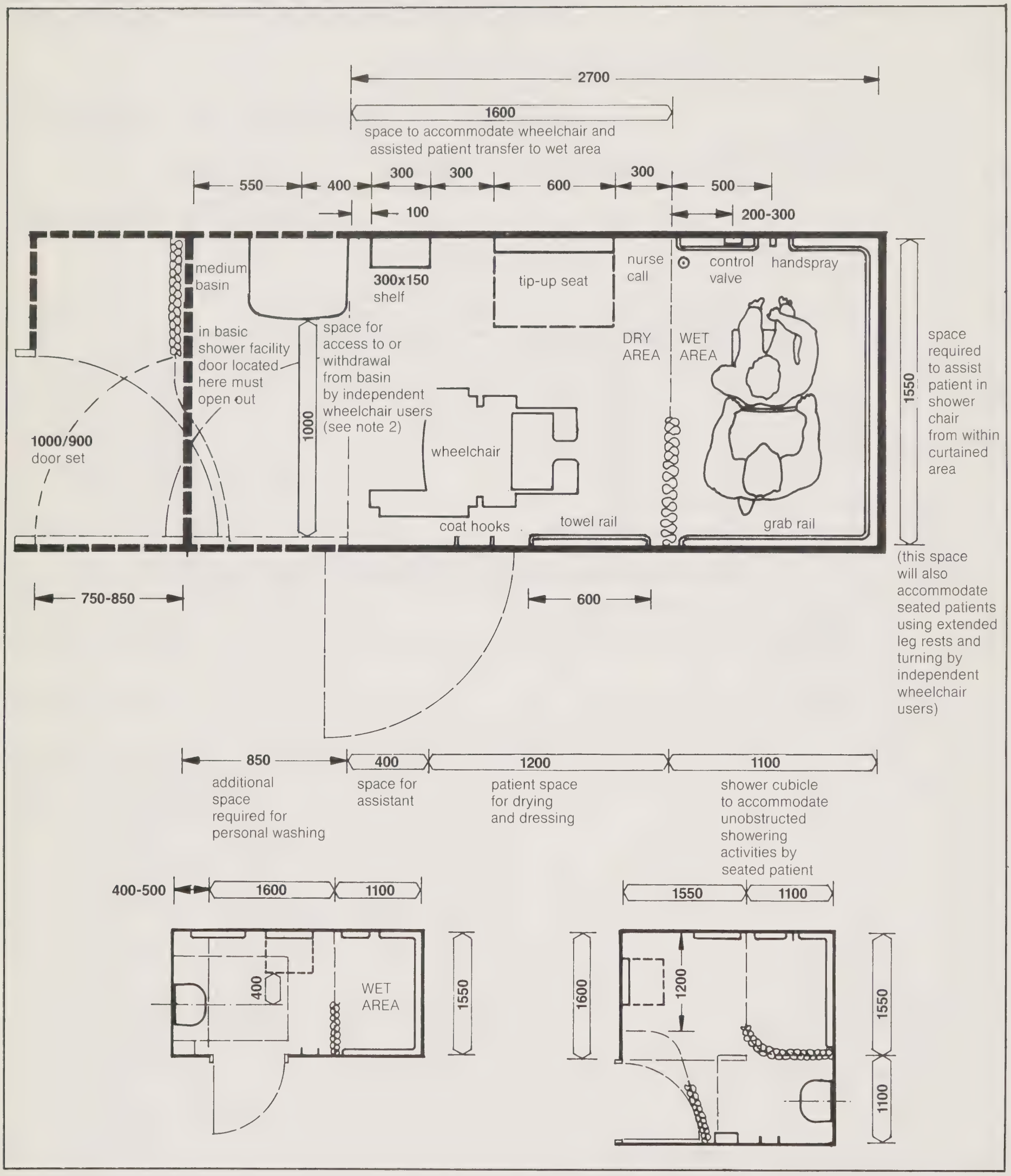
2. Arm movements may take place over wet cubicle space when shower curtain is drawn back, also over basin where rim height is 850.

Facilities for a patient who may be in a wheelchair or sanitary chair needing the assistance of staff to shower and use a washbasin

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Shower
(wheelchair/assisted patient)

2H14



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. To safeguard the privacy of patients when changing or using shower, it is desirable that access doors be adequately screened, and that these should not impede access or egress by assisting staff.

2. A space of 1200 is preferable to accommodate assisted wheelchair manoeuvres in front of basin.

3. The nurse call should be operable at 900-1000 above floor level, also near floor level (50-100) by a patient who has fallen.

4. Inward opening doors (in unscreened positions) are possible, but cannot be recommended as wheelchair movement becomes restricted; also door swing may be obstructed by patient using basin preventing entry by assisting staff.

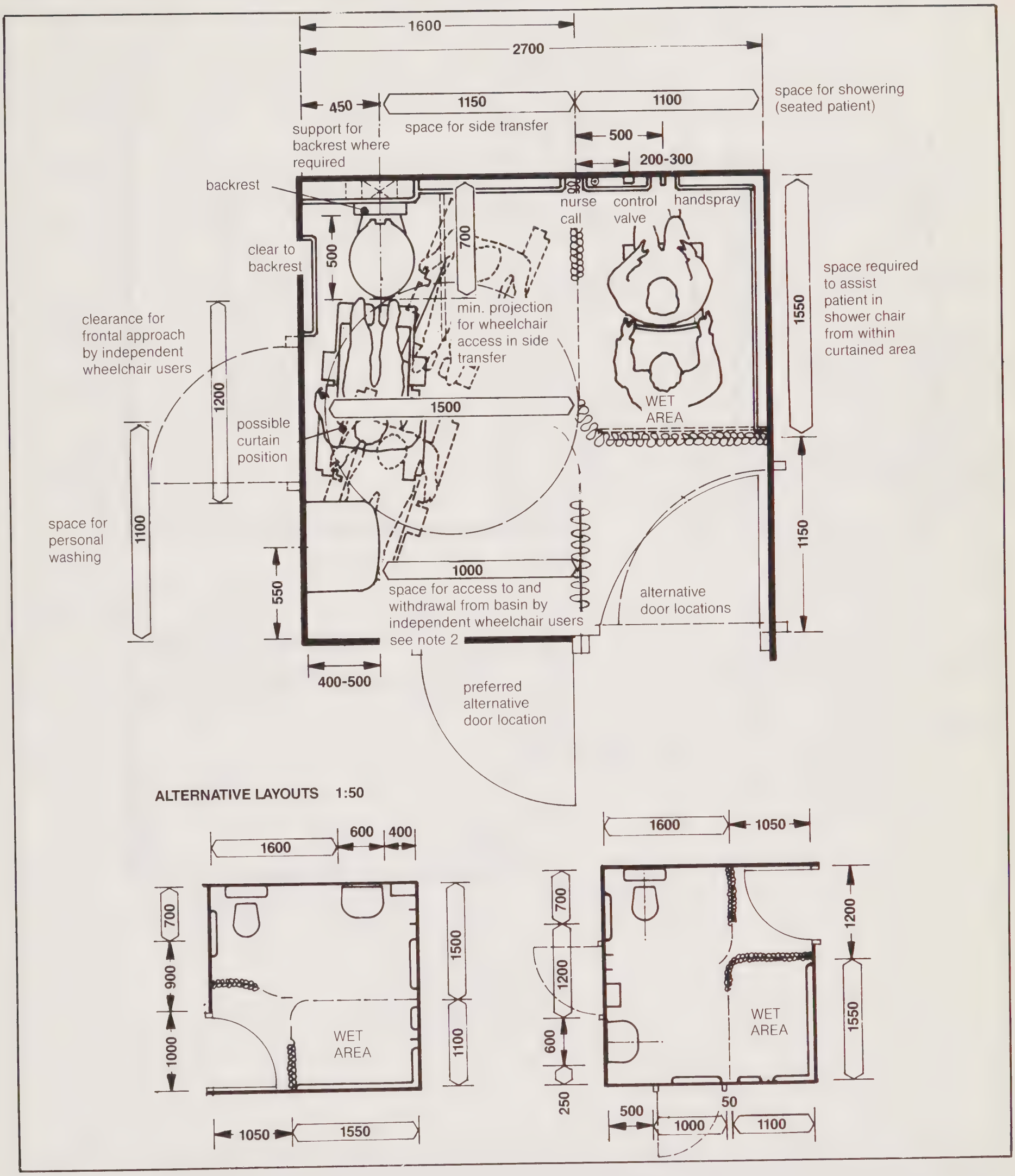
Facilities for a patient who may be in a wheelchair or sanitary chair needing the assistance of staff to shower, use a wash-basin and use WC

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Shower

(wheelchair/assisted patients)

2H13



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. To safeguard the privacy of patients when changing or using shower, it is desirable that access doors be adequately screened, and that these should not impede access or egress by assisting staff.

2. A space of 1200 is preferable to accommodate assisted wheelchair manoeuvres in front of basin.

3. The nurse call should be operable at 900-1000 above floor level, also near floor level (50-100) by a patient who has fallen.

4. Inward opening doors (in unscreened positions) are possible, but cannot be recommended as wheelchair movement becomes restricted; also door swing may be obstructed by patient using basin or WC preventing entry by assisting staff.

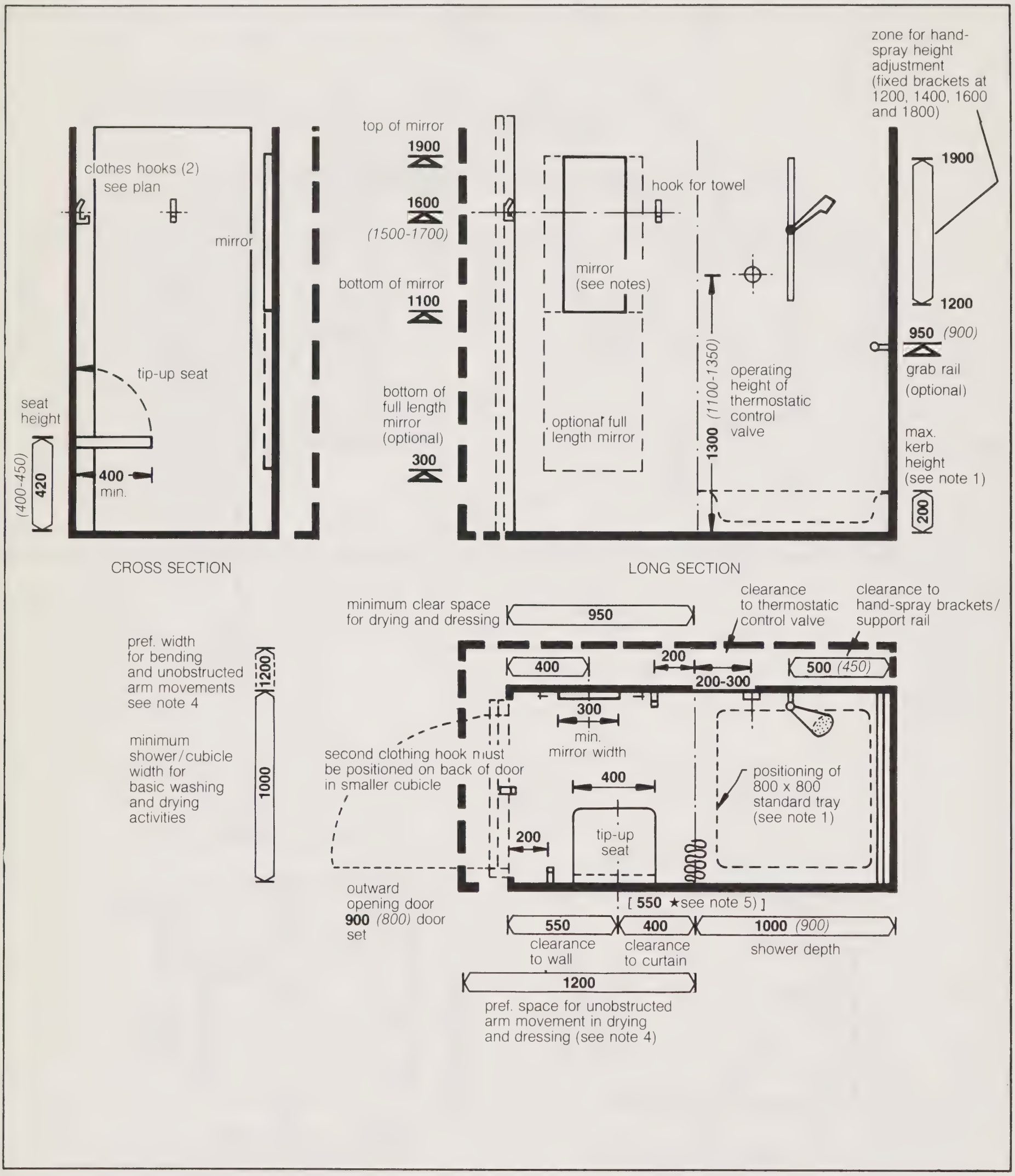
Activities:
Showering including undressing, drying, and dressing.

DHSS **Ergonomic data bank:**
Component user data sheet, not to scale

Staff Shower Cubicle

D2D

Users:
Fully ambulant male and female staff.



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:

1. A shower without a deep tray or kerb is preferred, but may be necessary for satisfactory drainage or to avoid flooding of drying/dressing area.

2. Access to control valve must be possible without need to reach through potentially hot spray. Flexible hose outlet should also be carefully specified so as not to impede access to control valve.

3. A grab rail inside the shower area is not essential but is highly recommended in all showers, irrespective of category of user in view of danger of slipping on wet surfaces. Non-slip finish to shower tray is essential.

4. This plan shows a satisfactory basic shower facility. However where soiling is severe and body cleansing requires bending and a wider range of unimpeded arm movements, a larger cubicle (shown dotted) is recommended.

5. Where shower curtain is replaced with a 'solid' screen, then clearance to centre of seat must be increased to 550mm.

Consulting — General

('A' Sheet Code C0103)

CONSULTING

Definition

An activity space where a patient, who may be ambulant or in a wheelchair, may be interviewed in confidence.

General Points

1. The consulting room is usually in direct communication with one or two examination rooms.

2. Access doors and communication routes should not inconvenience doctor, patient or escort (including those in a wheelchair), and door swings should not be a potential danger at any time.

3. The doctor, when seated at the desk, should be positioned comfortably to acknowledge a visitor on entry but should not be silhouetted against a window during the interview.

4. Special attention should be paid to ensure auditory privacy during consultation; the provision of soft floor coverings may be considered as an aid in this respect.

5. Clinical quality colour rendering light sources should be provided and walls, ceilings and floors should be of suitable colour and reflectancies.

6. Provision of a telephone and dictation facilities are project options.

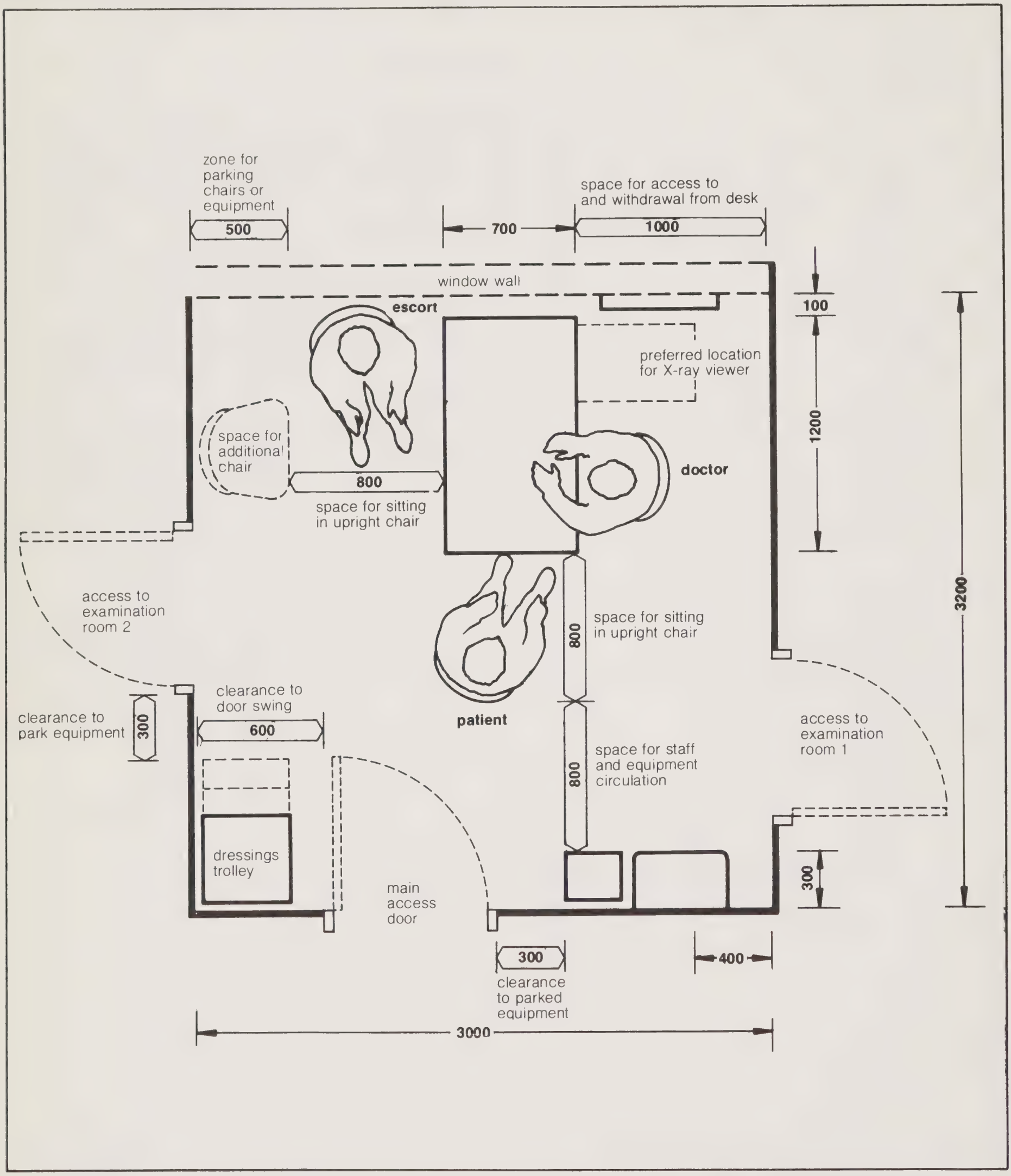
An activity space where a patient, who may be ambulant or in a wheelchair, may be interviewed in confidence: see also alternative layouts.

DHSS **Ergonomic data bank:**
Activity space example layout not to scale

Consulting Room (separate)

7B1

Layout A



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes

1. The consulting room is usually in direct communication with one or two examination rooms.

2. Access doors and communication routes should not inconvenience doctor, patient or escorts and door swings should not be a potential danger at any time.

3. The doctor/consultant when seated at the desk must not have his/her back to the main access door, but must be so positioned as to comfortably acknowledge a visitor on entry, and should preferably not be silhouetted against a window causing discomfort glare either as seen by a visitor entering the room or by a patient being interviewed.

4. It is psychologically more satisfactory if the space in front of the desk is seen to be significantly larger than the space behind the desk.

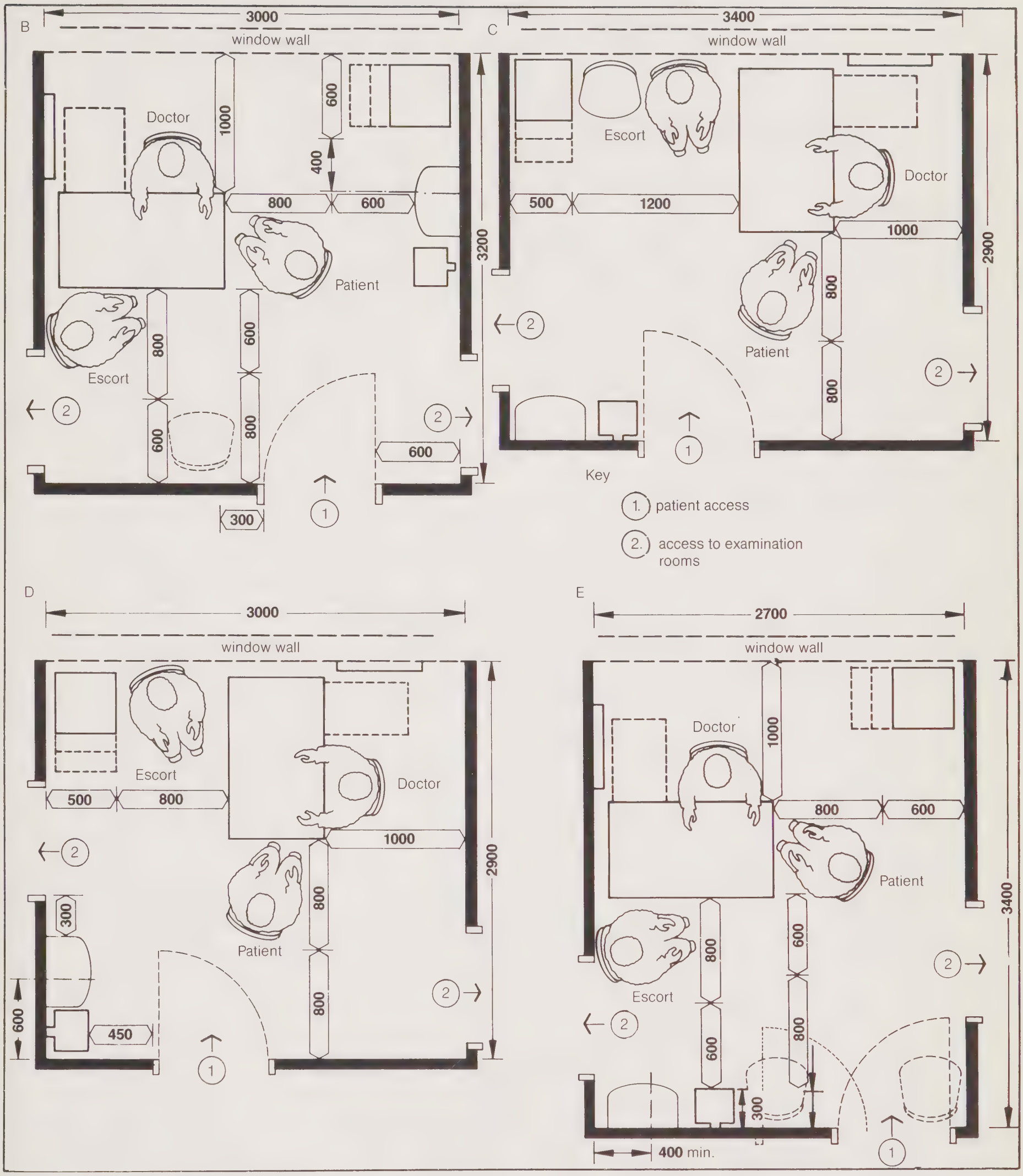
Alternative layouts (see also layout A)

Consulting Room (separate)

7B2

Layouts B, C, D and E

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes
see also notes on layout A.

1. Access to examination room 2 is slightly obstructed in plans 'B' and 'E' by the positioning of escort chairs. This would be improved or eliminated if the space in front of the desk is greater than the minimum dimensions shown.

2. Dressing trolley and hand rinse basin are best approached without the need to disturb patient or escorts.

3. In 'B' and 'E' the doctor is viewed by patient or escort against the background of the window wall. This is not very satisfactory as a glare condition is likely.

4. In plans 'C' and 'D' the main access door is immediately behind the patient chair position. Circulation space behind should not be less than 800 to accommodate door swing safely. A larger space — 900-1000 would be preferable if space is available.

Examination — General

('A' Sheet Code C0603)

Definition

An activity space where a patient may be examined and where certain diagnostic and therapeutic procedures may be carried out.

General Points

1. Examination rooms are usually sited in association with a consulting room, but there may also be a need for one as a single entity in association with a ward.

2. Access may be required by independent or assisted wheelchair users as well as ambulant patients, and there must be space for a patient to dress and undress, with or without assistance, without loss of privacy.

3. Examination should be possible from either side of the couch, without moving the furniture.

4. Door swings should not be a potential danger at any time.

5. An X-ray illuminator may be required when the room is not associated with an adjoining consulting room.

6. Clinical quality colour rendering light sources should be provided and walls, ceilings and floors should be of suitable colour and reflectancies.

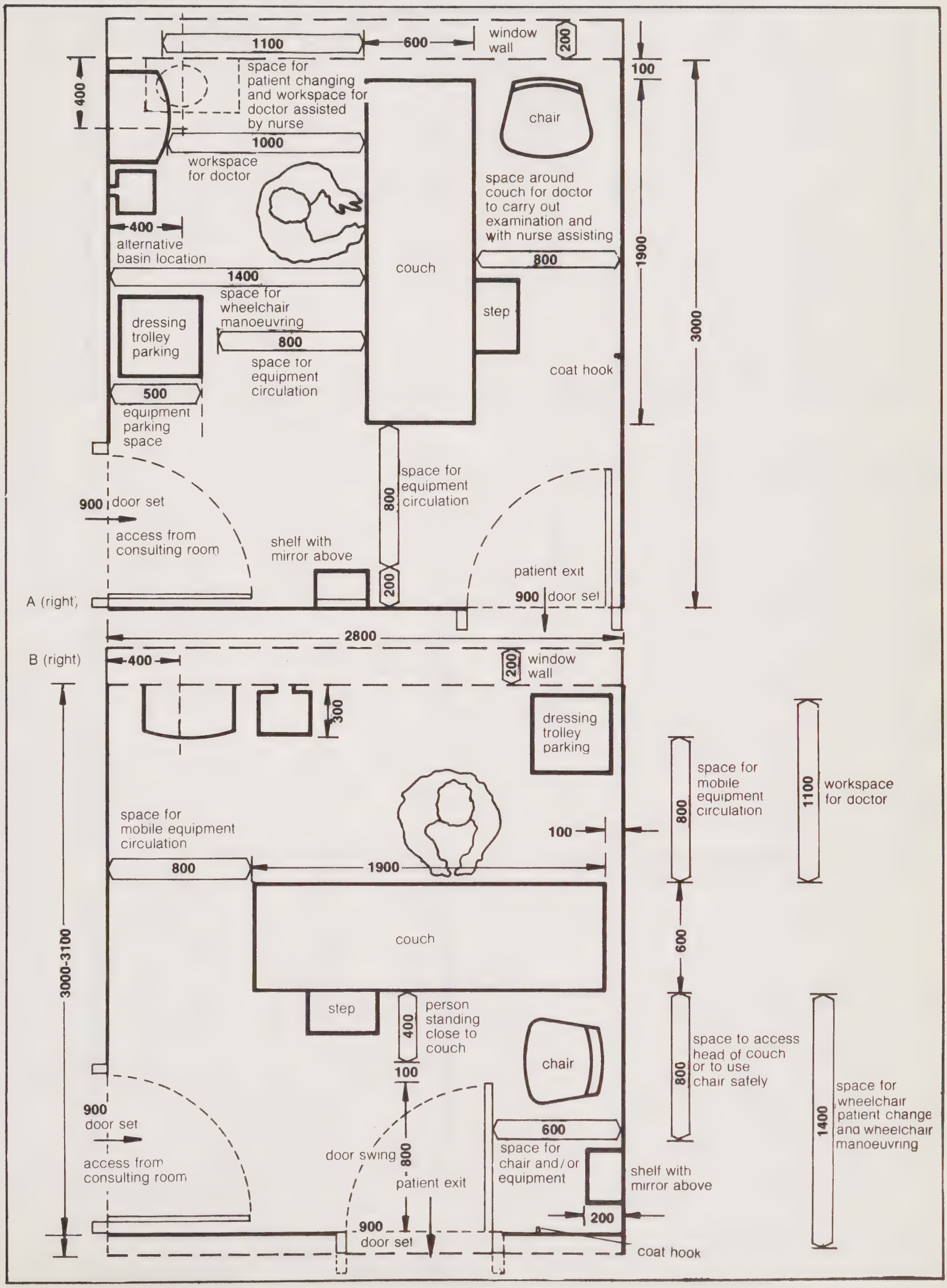
An activity space where a patient may be examined and where certain, diagnostic and therapeutic procedures may be carried out see also alternative layouts.

DHSS **Ergonomic data bank:**
Activity space example layout not to scale

Examination Room (separate)

7B7

layouts A & B

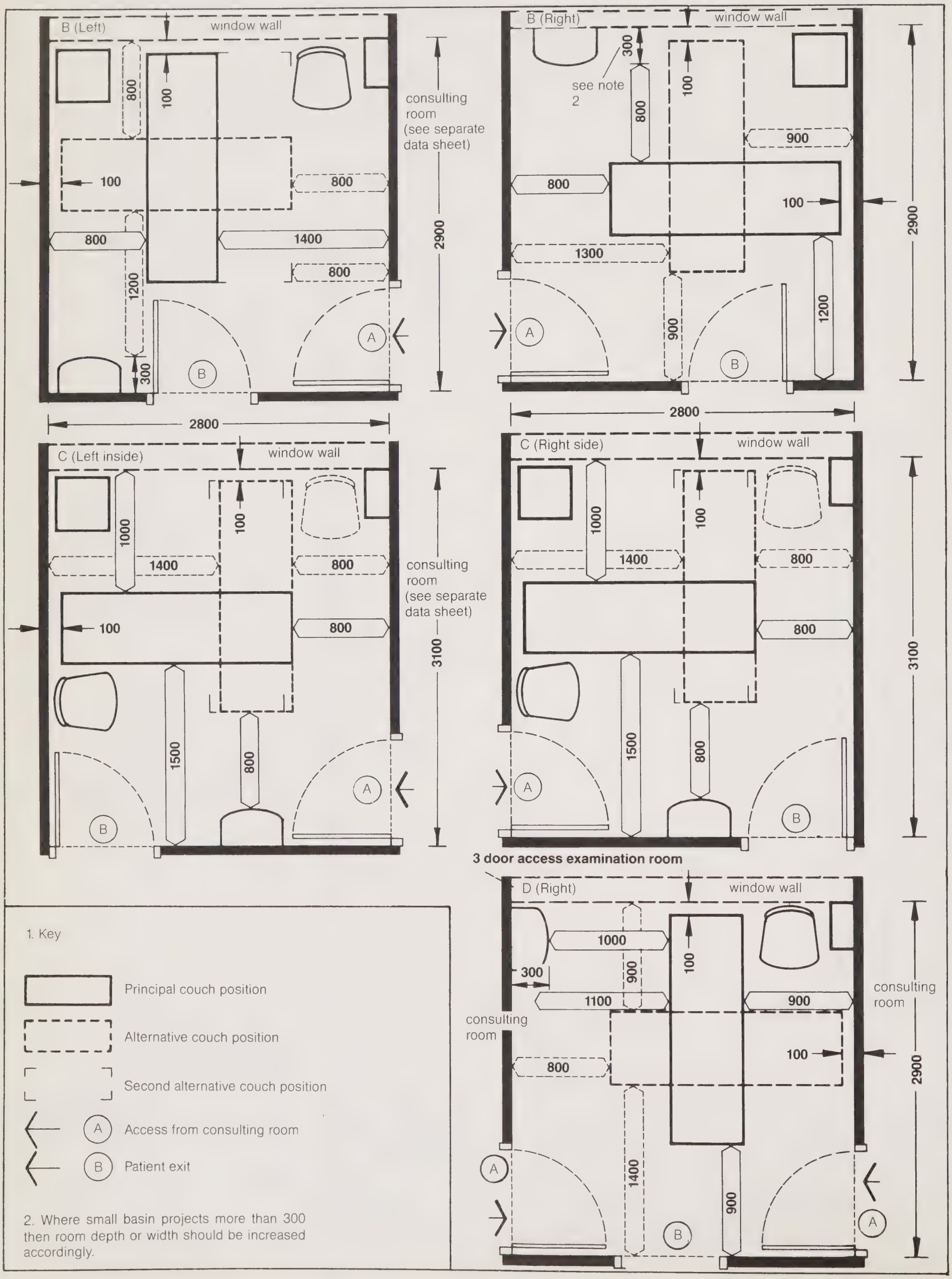


Alternative couch positions
see also layout A and B

Examination Rooms (separate)

7B8

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale



Consulting/Examination — General

('A' Sheet Code C0201)

Definition

An activity space where a patient may be interviewed in confidence and examined by a doctor assisted by a nurse or patient's escort, and where certain diagnostic and therapeutic procedures may be carried out.

General Points

1. Adequate space must be provided for free movement of patients (including those in wheelchairs) and staff without movement of furniture. Door swings should not be a potential danger at any time.

2. Access to both sides of the couch, which should be of variable height, is desirable. There should be space for the patient to dress and undress, with assistance if necessary, and in privacy.

3. The doctor, when seated at the desk, should be positioned comfortably to acknowledge a visitor on entry but should not be silhouetted against a window during the interview.

4. Items such as a washbasin, an X-ray illuminator and disposal bags should preferably be conveniently located between the consulting and examination areas.

5. Special attention should be paid to ensure privacy during consultation; the provision of soft floor coverings may be considered as an aid in this respect.

6. Clinical quality colour rendering light sources should be provided and walls, ceilings and floors should be of suitable colour and reflectancies.

7. Provision of a telephone, intercom unit and dictating facilities are project options.

8. In all cases, patient access door sets should be a minimum of 900mm and other door sets a minimum of 800mm.

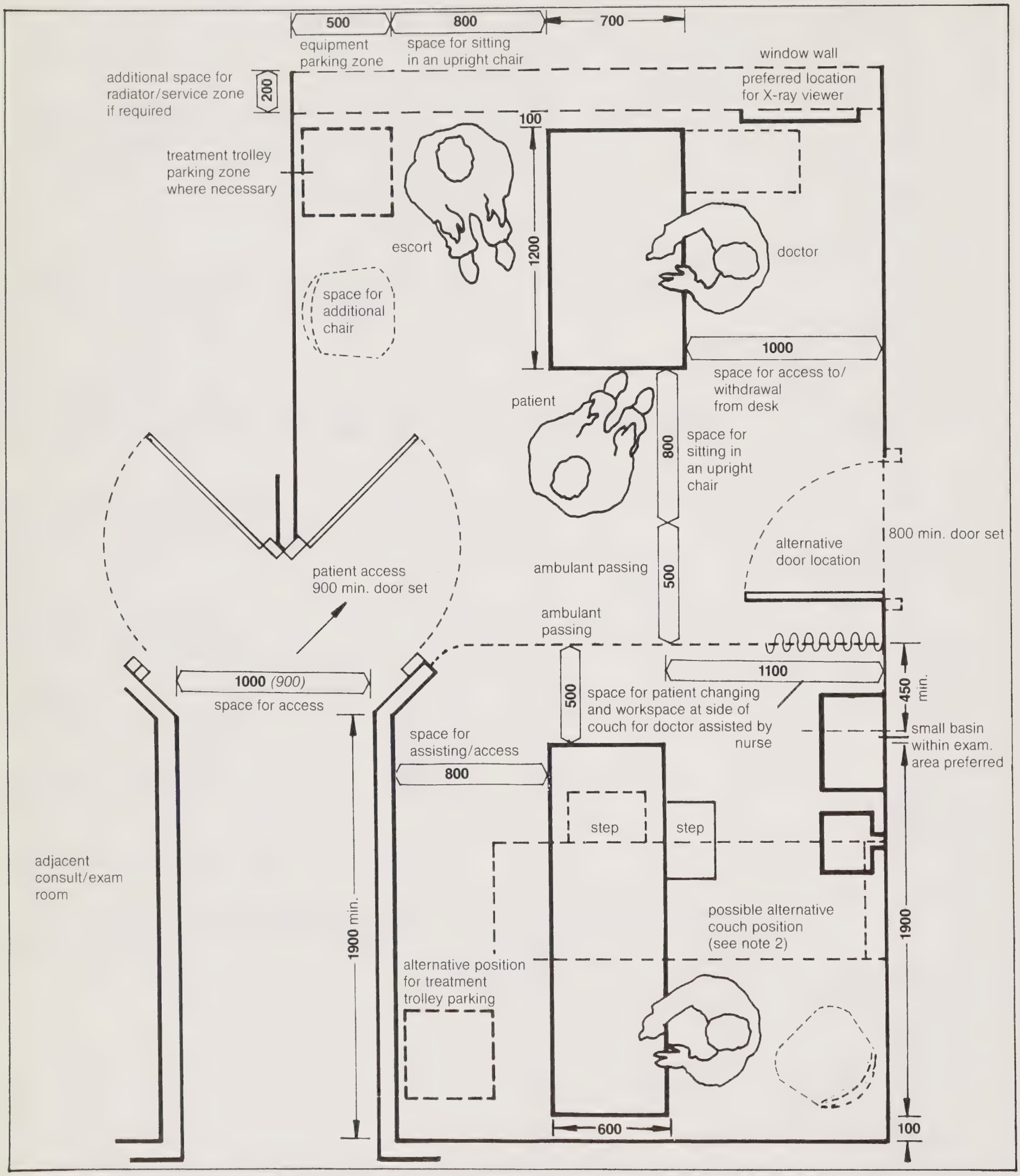
An activity space where a patient may be interviewed in confidence and examined by a doctor assisted by a nurse or patient's escort, and where certain diagnostic and therapeutic procedures may be carried out. See alternative layouts sheet, plans A2 & A3

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

Consulting/ examination room

7B6

(Combined general purpose)
Layout A1
Banked unit, deep room



1350 (1300)

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Plan allows doctor to face patient entering the room, also good communication with adjacent consulting examination rooms, and direct access to the right hand side of the patient on the couch.

2. The alternative couch position is not as satisfactory, where access to the patient's head is obstructed by the basin location.

3. Room dimensions shown are the minimum for satisfactory use. Wheelchair access will be restricted, especially if access corridor is only 900. 1000 minimum width approach corridor is preferable in all cases if possible.

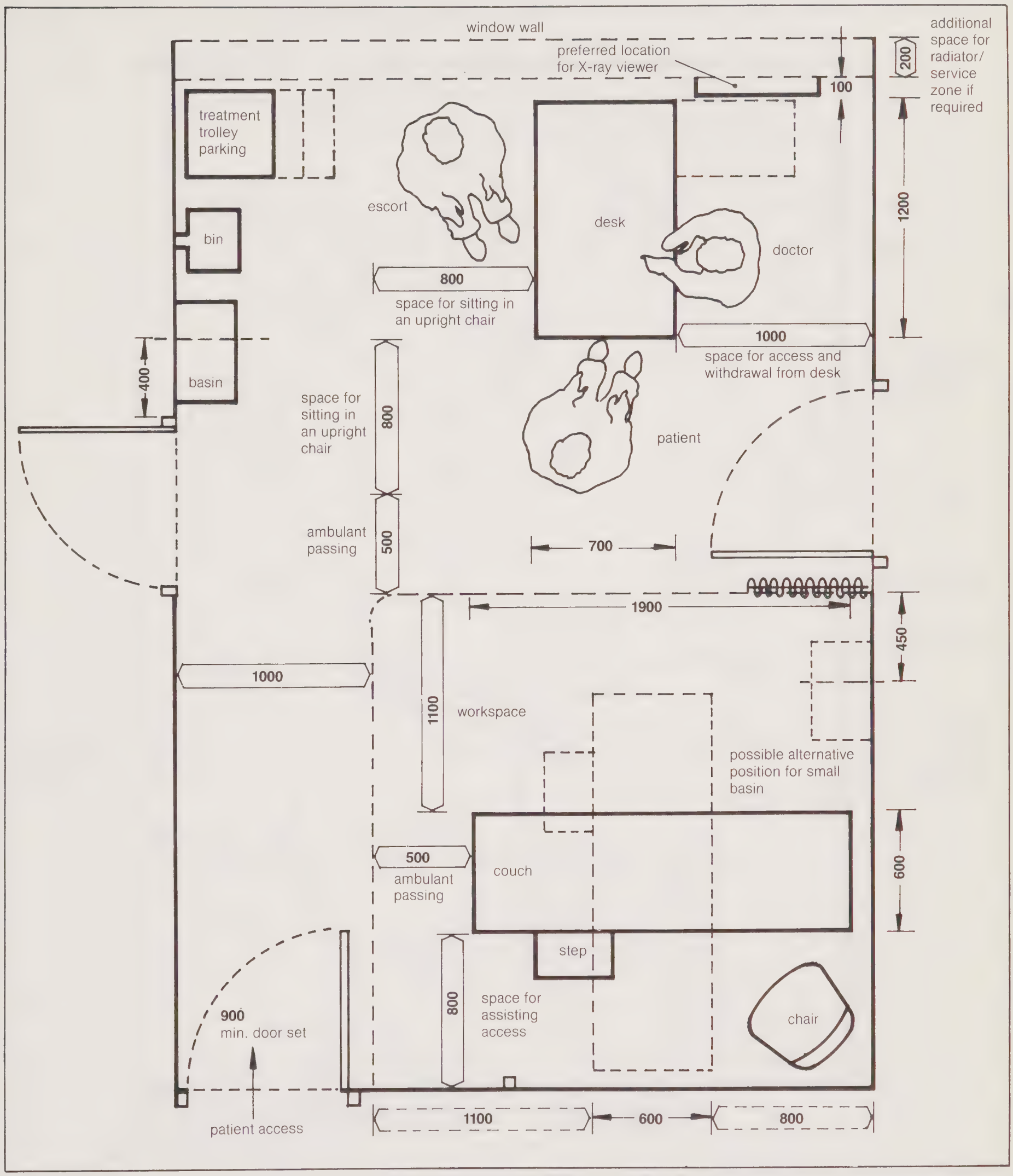
An activity space where a patient may be interviewed in confidence and examined by a doctor assisted by a nurse or patient's escort, and where certain diagnostic and therapeutic procedures may be carried out

DHSS **Ergonomic data bank:**
Activity space example layout sheet, not to scale

Consulting/ Examination Room

7B5

(Combined, general purpose)
Layout B, single unit, deep room



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

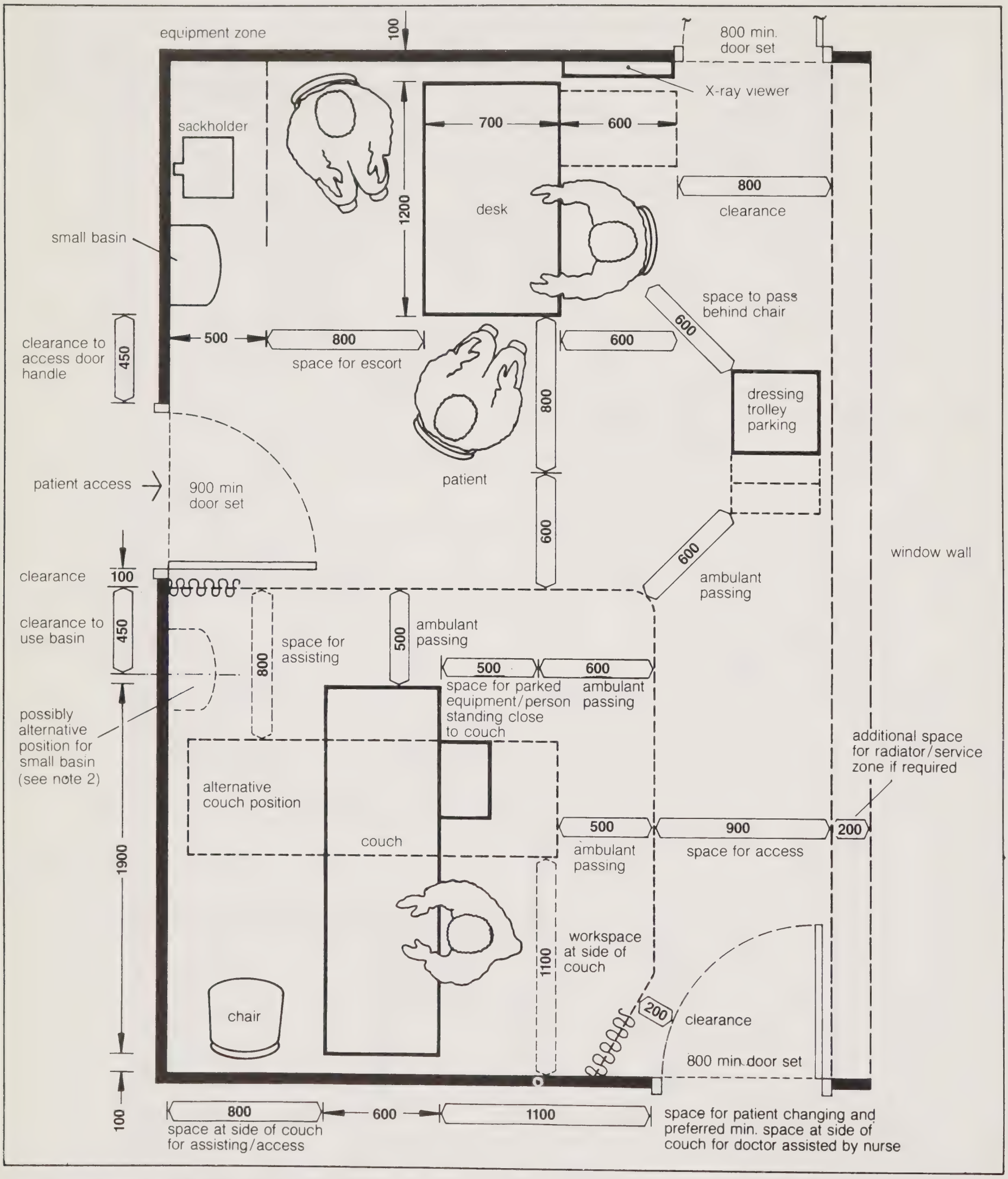
An activity space where a patient may be interviewed in confidence and examined by a doctor assisted by a nurse or patient's escort, and where certain diagnostic and therapeutic procedures may be carried out. See also alternative layout C2

DHSS **Ergonomic data bank:**
Activity space example layout data sheet, not to scale

Consultation/ Examination Room

7B4

(Combined general purpose)
Layout C
Single unit, shallow room



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Plan allows doctor to face patient entering the room. Good circulation is afforded between adjacent rooms and the doctor has good access to the right hand side of the patient on the couch. A disadvantage is that the doctor is seated with his back to the window wall (and may produce a glare condition for the patient's escort), also this space immediately inside the door will prove a little restricted for patients in a wheelchair.

2. This alternative basin position is not very satisfactory as it obstructs access within the examination space.

3. The positions of the small basin/sackholder and dressing trolley parking can be reversed without impairing the effectiveness of the room layout. (This would in fact improve circulation space between adjacent rooms if this is considered to be important).

An activity space where a patient may be interviewed in confidence and examined by a doctor assisted by a nurse or patient's escort, and where certain diagnostic and therapeutic procedures may be carried out.

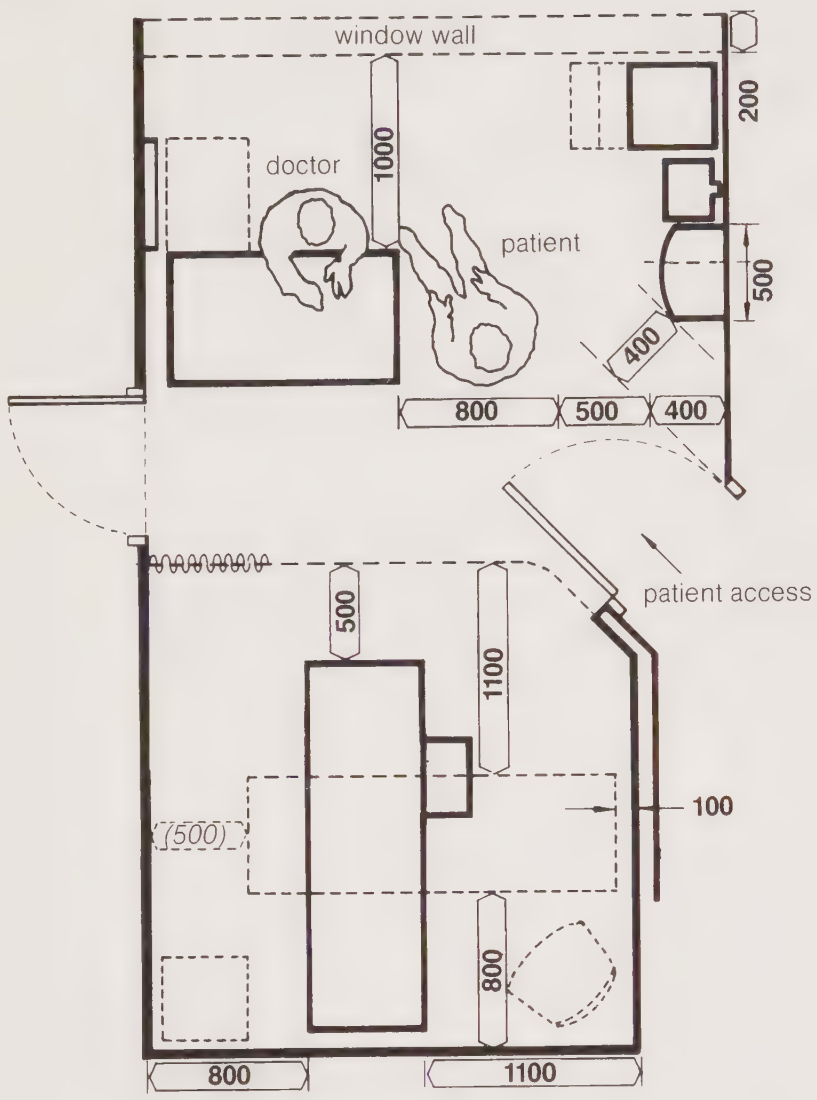
DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

7B3

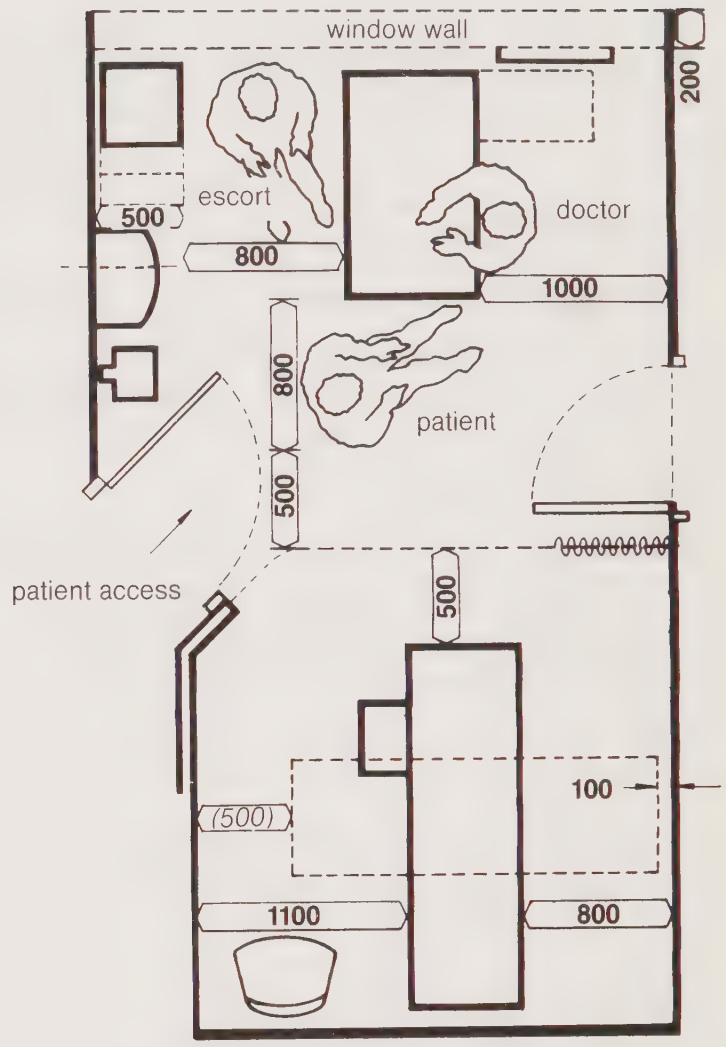
Consulting/ Examination Rooms

(Combined, General Purpose)
Alternative layouts A1, A2 & C2

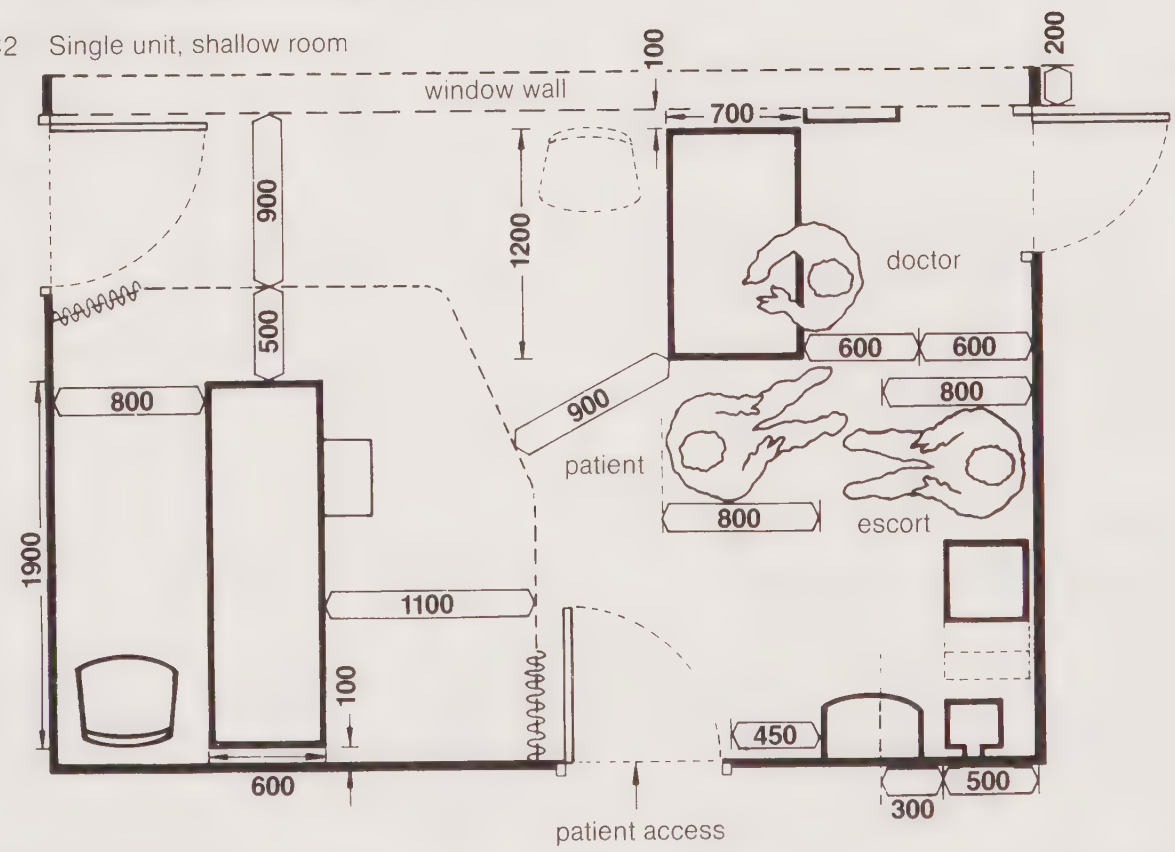
A1 Banked unit, deep room



A2 Banked unit, deep room



C2 Single unit, shallow room



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. This sheet should be read in conjunction with Consulting/Examination Room (Combined General Purpose), Layouts A1, B & C.

2. All plans afford good relationships and access. In layout A2 the doctor is seated with his back to the window, which is also not entirely satisfactory.

3. In layout A1 there is no ideal location for the escort, as in front of the doctor's desk is an access point.

Treatment Room — General Purpose

('A' Sheet Code X0101)

Definition

An activity space providing facilities for medical and nursing staff to perform procedures requiring a clinical environment.

General Points

1. A general purpose treatment room will meet the requirements of most clinical departments, but minor variations may be necessary for certain specialties, eg ophthalmology and ENT. These specific variations should be decided at local project level.

2. The patient may be ambulant, in a wheelchair, on a trolley, or on a bed, and an appropriate door width must therefore be provided. Door swings should not impede movement or activities within the room, and should not be a potential danger at any time. (See also lobby space requirements.)

3. All round access to the patient on the couch, patient trolley, or bed is essential. Where treatment occurs on a patient trolley or bed, space must be conveniently available either outside or inside the treatment room for the unused couch to be temporarily parked away from the essential workspace. (The couch must therefore be mobile.)

4. It is advised that storage for all supplies should be in an associated clean utility space and not within the treatment area.

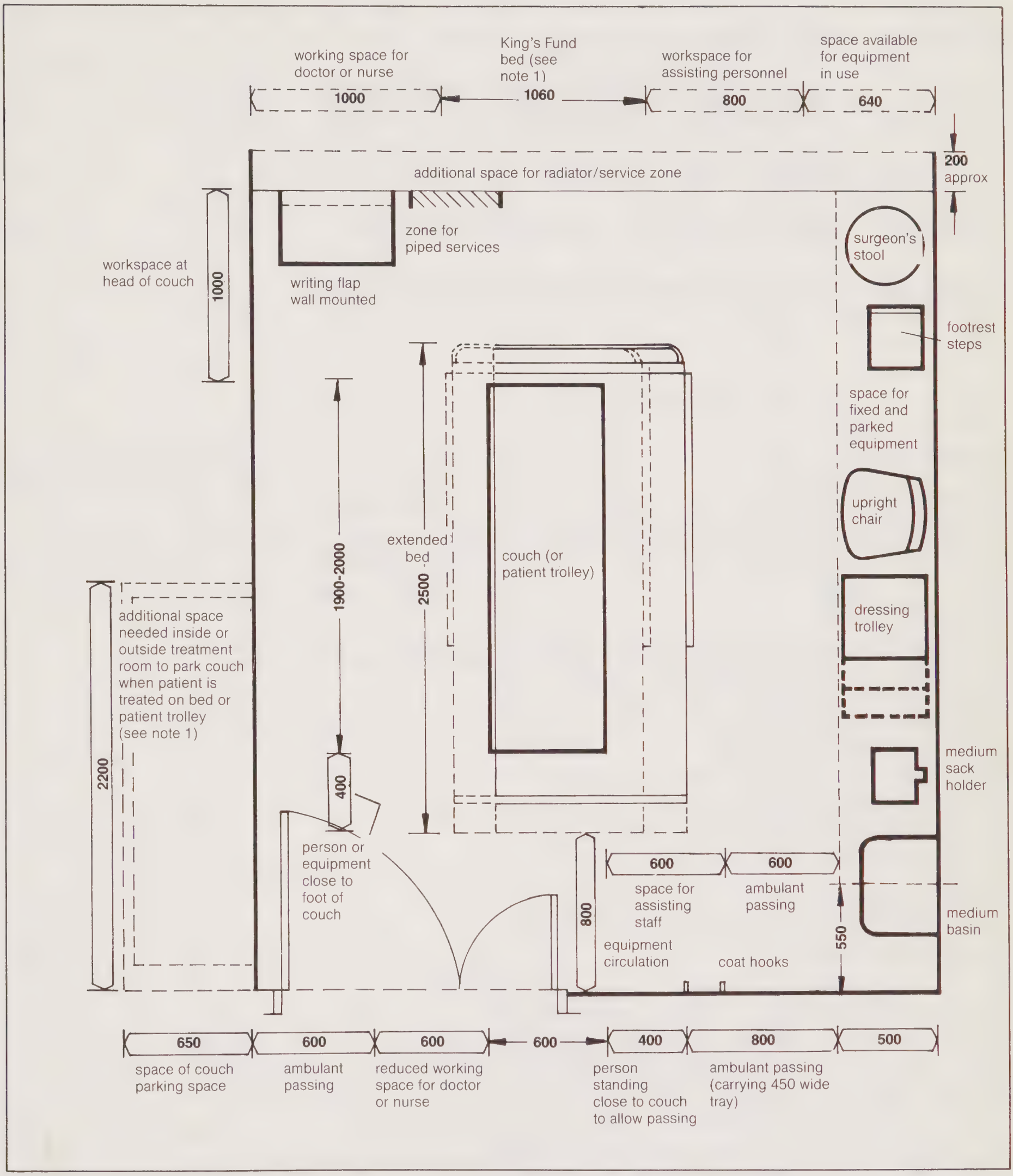
5. Clinical quality colour rendering light sources should be provided and walls, ceilings and floors should be of suitable colour and reflectancies.

An activity space providing facilities for medical and nursing staff to perform procedures requiring a clinical environment

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

7B9

Treatment Room (general purpose)



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Treatment may be performed on a patient trolley or bed, as well as on a couch. When this occurs the couch must be removed temporarily and parked outside the essential workspace. This may be outside the room provided it does not cause an obstruction, or inside the room, if the room dimensions are increased to accommodate this.

2. To accommodate a King's Fund bed with orthopaedic attachments, both the room dimensions and the clear door opening should be increased.

	'A' Sheet Code
Office - General	M0101
Office - Senior Staff	M0106
Office - All Disciplines	M0201
Office - Medical, Doctor's Office	M0305
Office - Medical, Head of Division	M0306
Office - Medical, 2 Senior Staff	M0307
Office - Interview/Overnight Stay	M0802 and M0803

Definition

An activity space with facilities for the performance of tasks primarily involving desk work, paper storage, telephoning and interviewing.

General Points

1. The facilities suggested should meet the requirements of a large range of health service staff with minor variations of loose equipment to meet specialised needs. Such variations would need to take into account specific requirements such as information display, reception of visitors, use of office machinery etc.

2. The range of sizes of offices should be limited. Where it is felt appropriate to differentiate between the status of occupants this should be achieved by variations of loose furniture rather than by size of office. To this end it is suggested that generally, offices should allow space for the regular occupant(s) and at least three other people for interview or discussion.

3. 'A' Sheet M0101 should meet the needs of the majority of health service staff although the type of desk may vary between a single and a double pedestal unit. M0201 is basically similar but includes the provision of a mirror, an item which may be appropriate to any office occupied by female or uniformed staff.

4. The accommodation for medical staff is similar to that of other disciplines but the need to take special note of requirements such as X-ray illuminators should be borne in mind.

5. Where a member of staff regularly performs 'on call' duty, it may be appropriate to provide additional space and equipment to allow an office to perform the function of a bedroom. 'A' Sheets M0802 and M0803 indicate an acceptable level of provision, but see also the section on interview rooms.

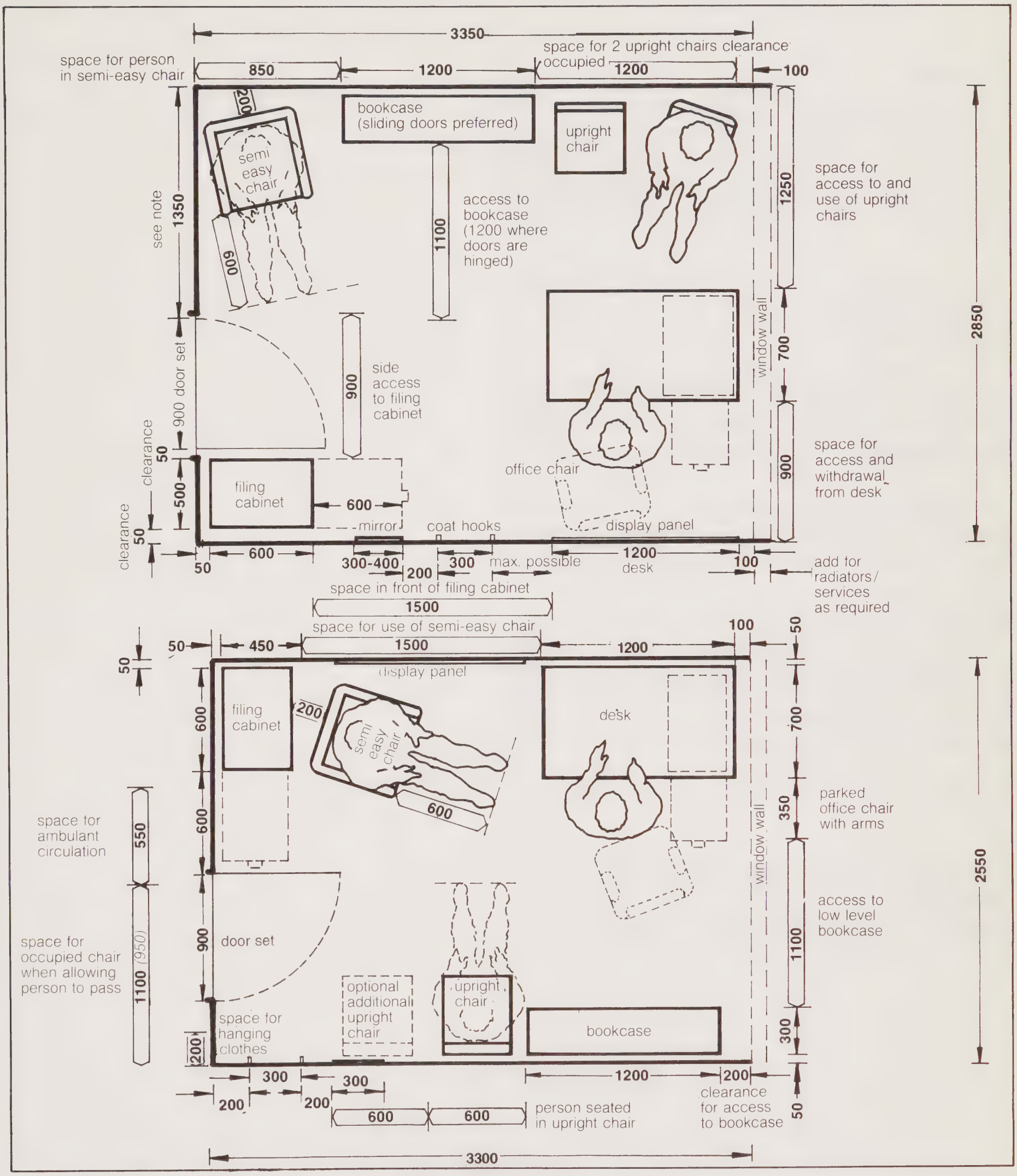
NOTE: In addition to the requirements described above, space may also be required in some offices for various types of computer equipment.

Activities
An activity space with facilities for the performance of tasks primarily involving desk work, paper storage, telephoning and interviewing.

DHSS **Ergonomic data bank:**
Activity space example layout, not to scale

318

Office
All disciplines



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1 : 1500 is required to satisfactorily accommodate a semi-easy chair in this position. But deficiency can however be overcome if the chair is used in an angled position, but this will lend to increased obstruction to bookcase access. This is acceptable where access is not required frequently.

'A' Sheet Code

Interview Room/Relatives' Accommodation Day Room /Overnight Stay

M0707

D1302

Definition

These activity spaces are dual purpose. They perform the function of providing a space where confidential interviews may be held away from a clinical or official environment. They also meet the requirement to provide night or day accommodation for the relative(s) of seriously ill patients.

General Points

Interview Room

1. The interview room provides an environment where members of staff may hold confidential discussions with other staff, with patients, or relatives, in circumstances where it is felt that it would be inappropriate to use office accommodation, eg interviewing, counselling, etc.

2. Provision is made for a limited amount of desk work only as it is intended that such interviews should be held in the atmosphere of a sitting room rather than that of an office.

Relatives' Accommodation

1. Relatives of seriously ill patients require a room where they can rest and wait. Planners should bear in mind that relatives may be awake most of the night and may need to sleep either by day or by night.

2. The furniture recommended enables these requirements to be met.

NOTE:

Critical dimensions for these spaces are similar to those for offices except that space should also be provided for a couch or divan, clothes storage and personal washing facilities as specified on the appropriate 'A' Sheet.

'A' Sheet Code

Seminar Room 20 Persons H0501
Seminar Room 10 Persons H0503

Definition

An activity space which may be used for small conferences, discussions and tutorials on a formal or informal basis.

General Points

1. Seminar rooms may be single or in groups according to the functional requirements.

2. Full blackout facilities are rarely necessary but there should be some means of darkening the room when required. Where blackout facilities are used regularly for long periods, special attention must be given to the problems of ventilation.

3. Socket outlets should be positioned so that overhead projectors, slide projectors and mobile X-ray illuminators etc can be used with minimum danger from trailing cables.

4. The furniture and equipment in the seminar rooms should be a project option according to the functional activities carried out in the rooms.

NOTE: Drawings are not provided for this space.

PART B

COMMON COMPONENTS

USER DATA SHEETS ILLUSTRATING SOME COMMONLY OCCURING COMPONENTS

1. Sanitary Components

1. Sanitary Components

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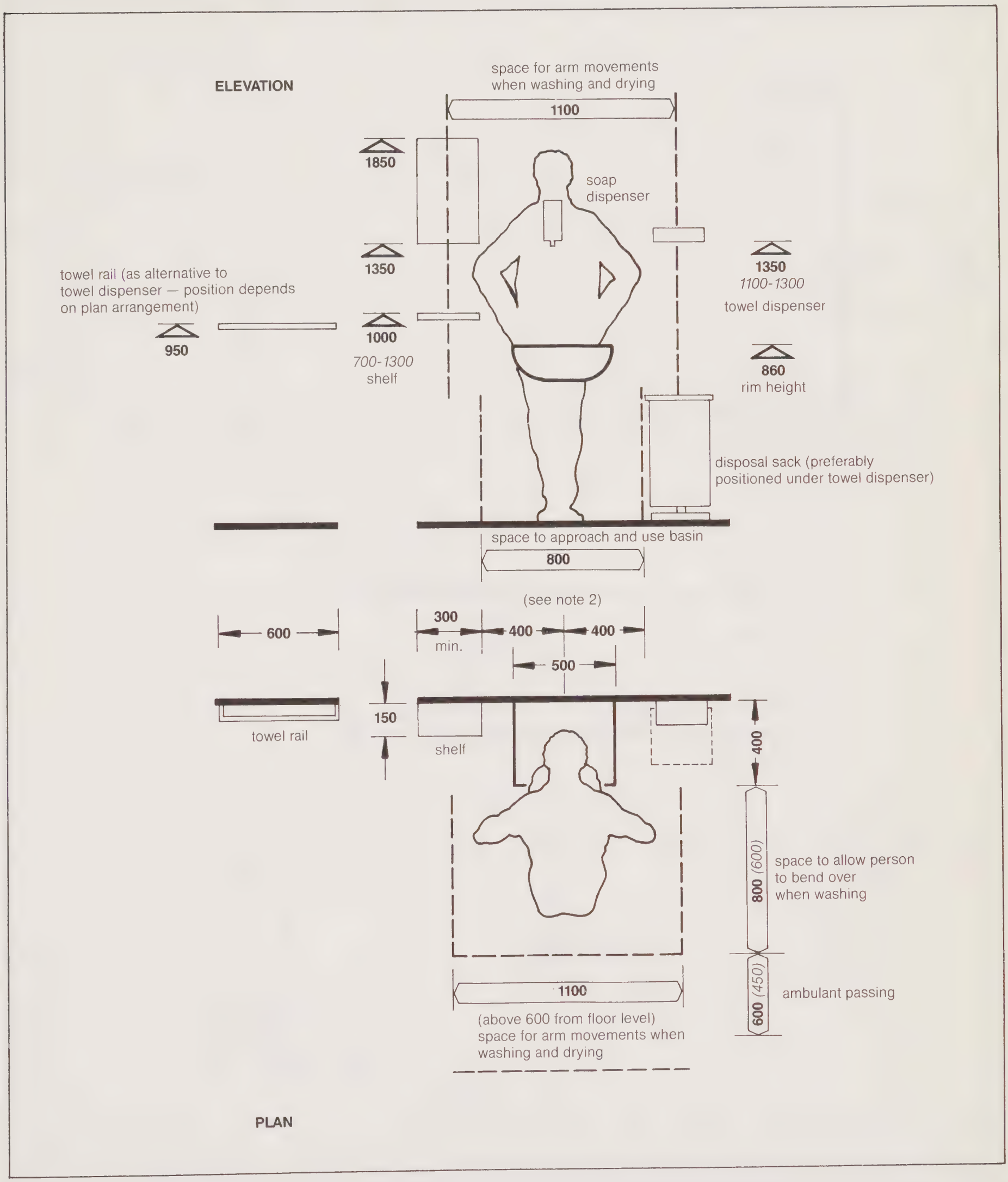
Activities:
Personal washing (hands, forearms, face etc.)

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

2A1

Basin
Medium

Users:
Ambulant staff and patients



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Recommended dimensions for location of associated items:

Comfortable forward reach 450, maximum reach 750 (from front edge of basin).
Comfortable sideways reach 750, maximum reach 850 (from centre line of basin).

2. To avoid possible injury to users bending over the basin, care should be taken in locating any associated item over the basin, within the 800 wide zone shown, and up to a height of 1800 above floor level.

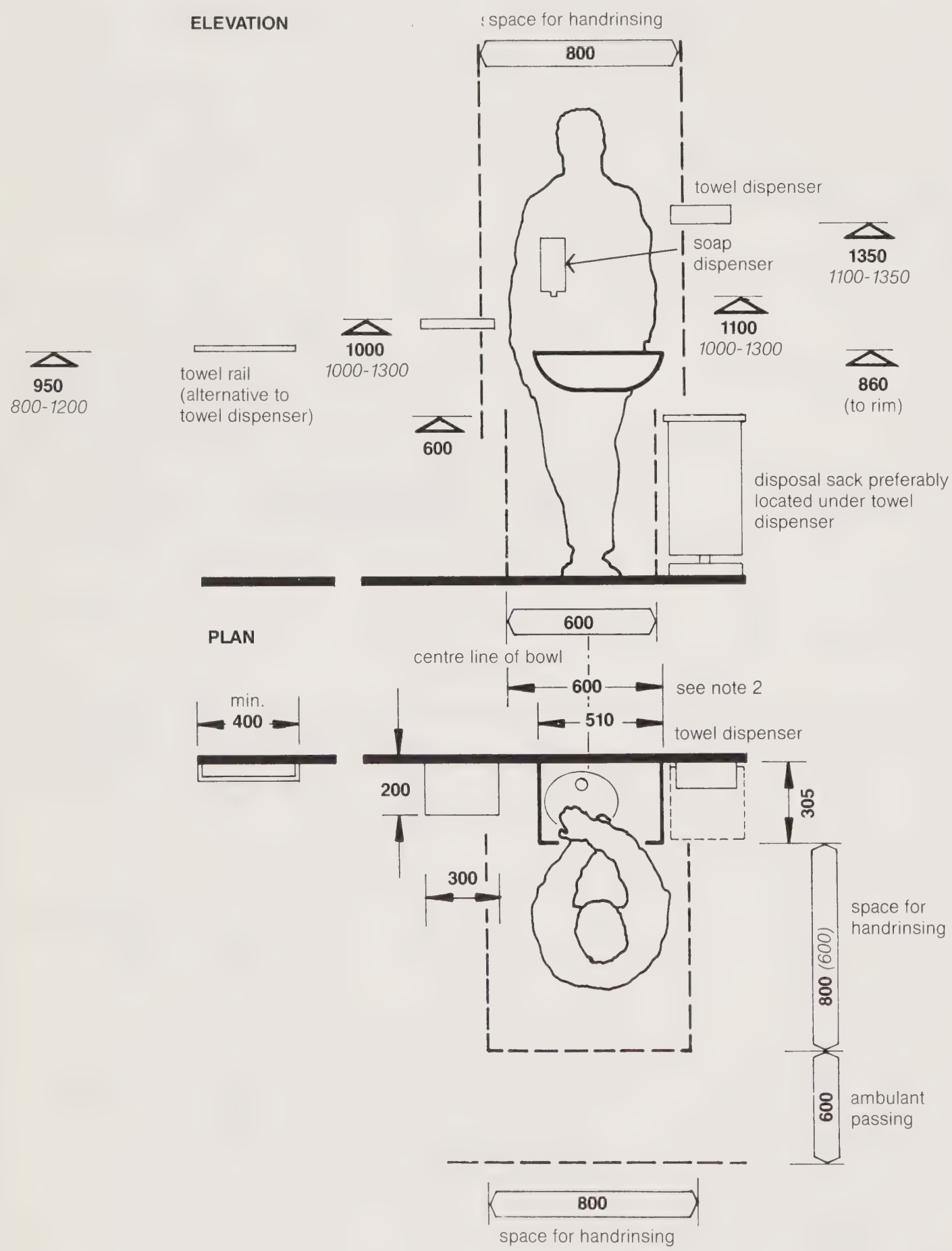
Activities:
Handrinsing

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

2A6

Basin
handrinse

Users:
Ambulant staff, visitors and out-patients



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Reach dimensions to secondary components. forward reach from edge of basin — 450 (comfortable) 750 (maximum)
sideways reach from centre line of basin — 750 (comfortable) 850 (maximum).

2. To minimise possible injury to tall users when leaning forward over basin it is preferable that within this zone, the front edge of the basin projects at least 250 beyond any fitting located above the basin. Where the basin is recessed, the space from the front edge of the basin to the wall surface should be 250 (200).

Activites
Personal washing, (hands, forearms, face etc.)

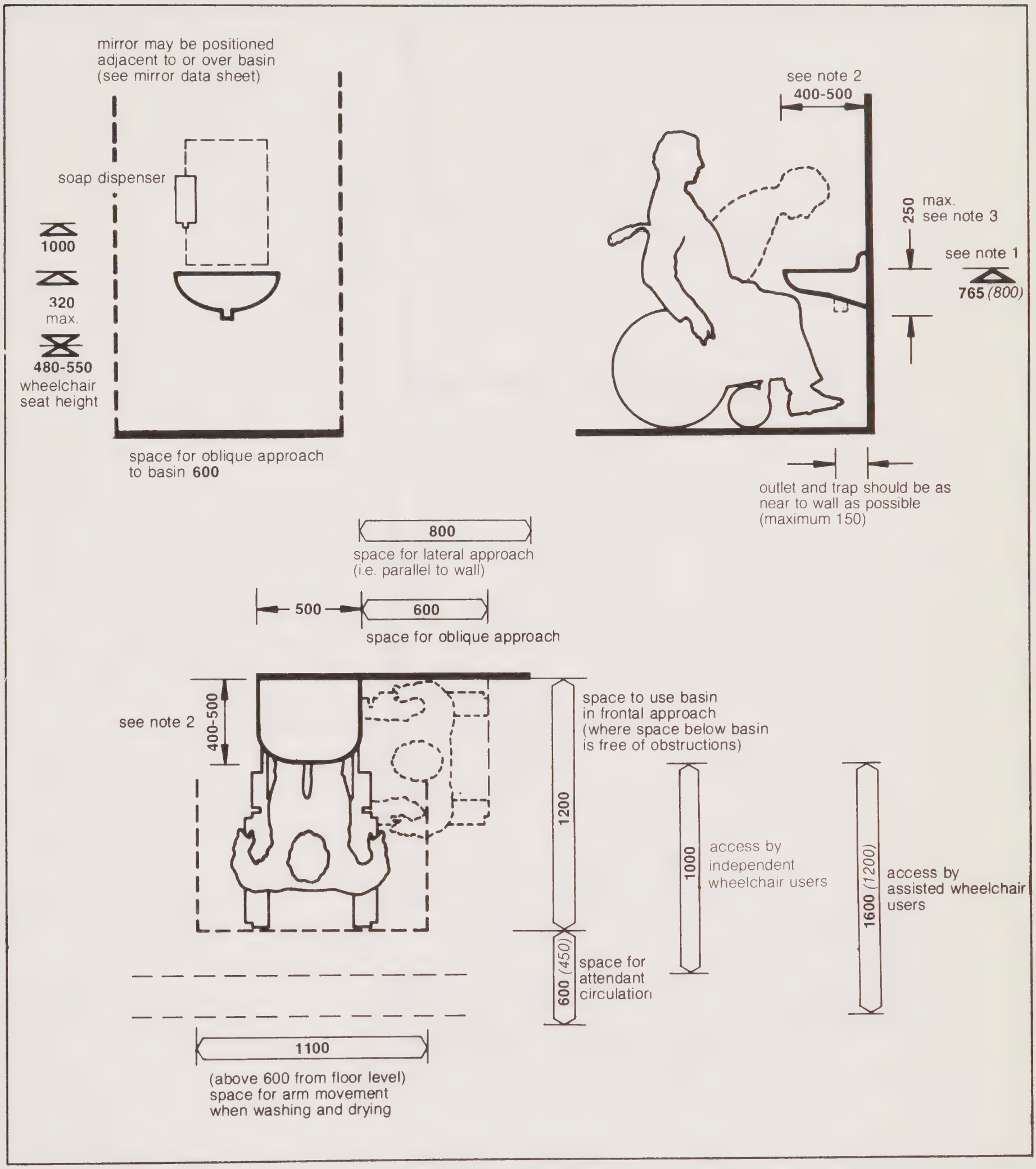
DHSS **Ergonomic data bank**
Component-user data sheet, not to scale

2A4

Basin

Medium

Users:
Independent and assisted wheelchair users (also seated users)



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Basin rim height — 765 above floor level is recommended. This is slightly higher than ideal for normally seated users, but is necessary to accommodate the higher seat height of wheelchairs (480-550) as opposed to 430-440 for normal upright chairs). Deep cushions are frequently used giving seat heights of 520-550.

2. For personal washing activities by wheelchair users a basin projecting 500 is preferred to provide adequate leg room under the basin in frontal approach. A depth of 500 is essential for such activities as hair washing and face washing (Maximum basin projection - 700).

3. Care must be taken in the selection of basins for wheelchair or other seated users. Despite the need for a relatively large cantilever projection, it is essential that the basin profile be as shallow as possible, i.e. it should be tapered from the rim to a depth preferably not exceeding 250 (max.) at the outlet, which in turn should be positioned as near the supporting wall as possible.

Activities:
Handrinsing

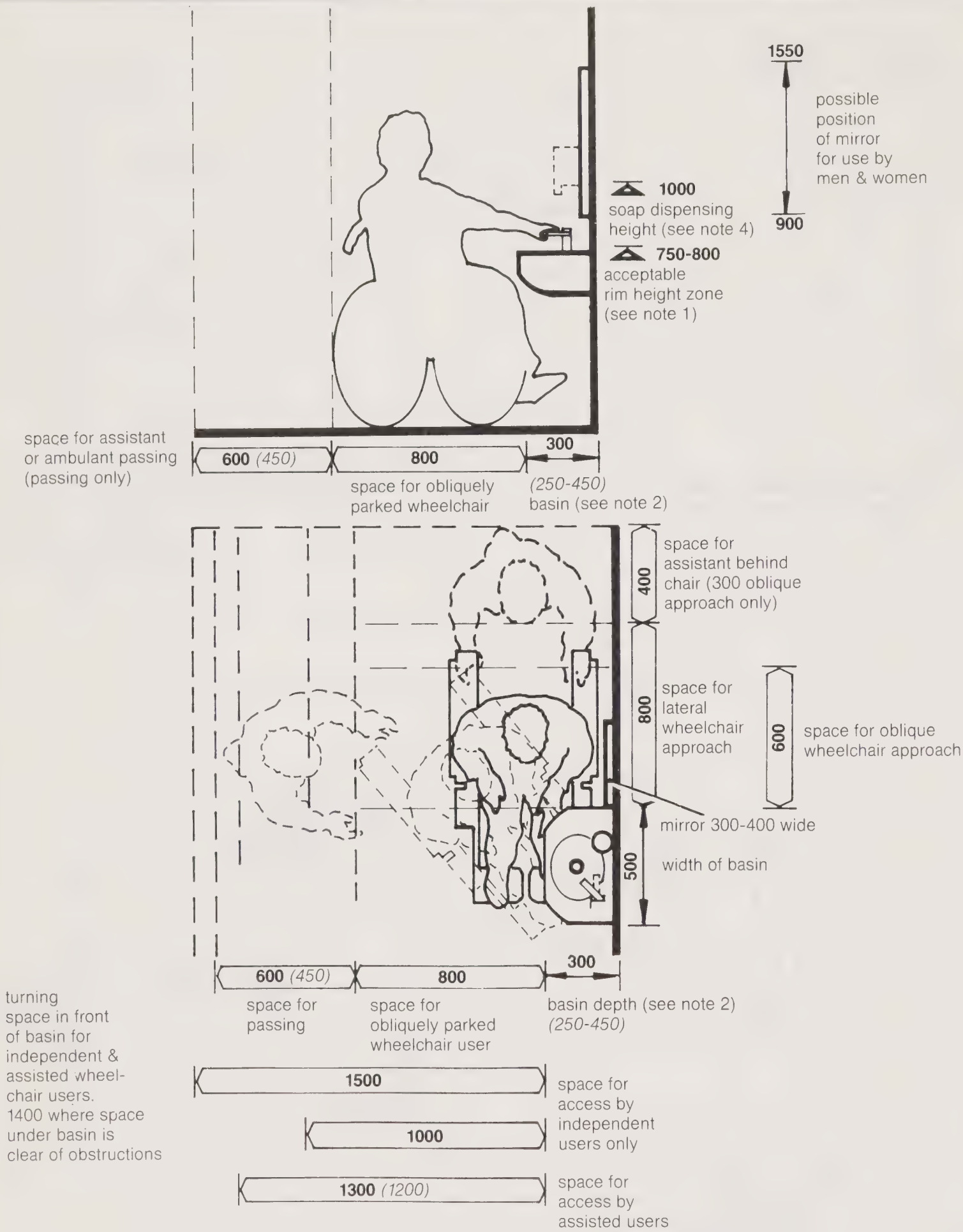
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

2 A7

Basin

handrinse

Users:
assisted and independent wheelchair users



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Rim heights between 700-750 would be preferable, but as basin profiles obstruct user access it is essential to increase the rim height to provide knee space under the basin. The increase should be kept to a minimum. Rim heights over 800 are unsatisfactory for small users.

2. Handrinse basin dimensions vary (250-450). Basins which project less than 300 tend to be unsatisfactory in use, in that they do not adequately contain splashing. (This is a particularly critical requirement for seated users.) For this reason recessed basins, because they tend to be very shallow, are not favoured. Additionally they restrict access and movement of hands which is unsatisfactory for disabled users, and the wall into which it is built prevents approach for comfortable reach to the bowl area.

3. Lever action tap preferred for independent users.

4. Soap dispenser (and towel dispenser where provided) must not be positioned over tap, where dispensing action will be impeded.

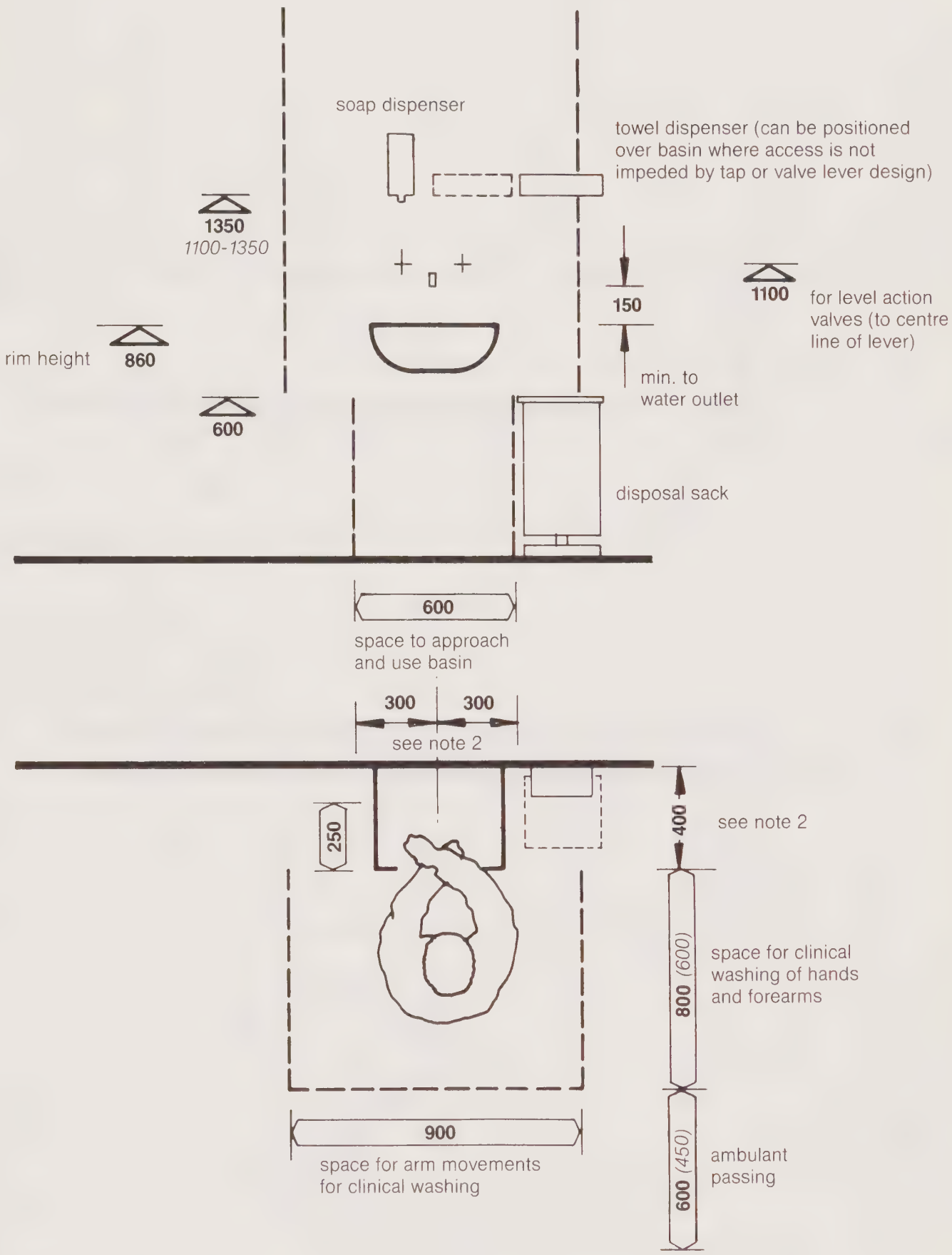
Activities:
Clinical washing of hands and forearms

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

2A2

Basin
Medium

Users:
Staff



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Recommended dimensions of associated items.
Comfortable forward reach 450, maximum reach 750 (from front edge of basin).
Comfortable sideways reach 750, maximum reach 850 (from centre line of basin).

2. To minimise possible injury to tall users when leaning forward over basin, it is preferable that within this zone the front edge of the basin projects 250 beyond any fitting situated above the basin up to a height of 1800 above floor level.

Activities
Bathing, including drying, undressing/dressing.

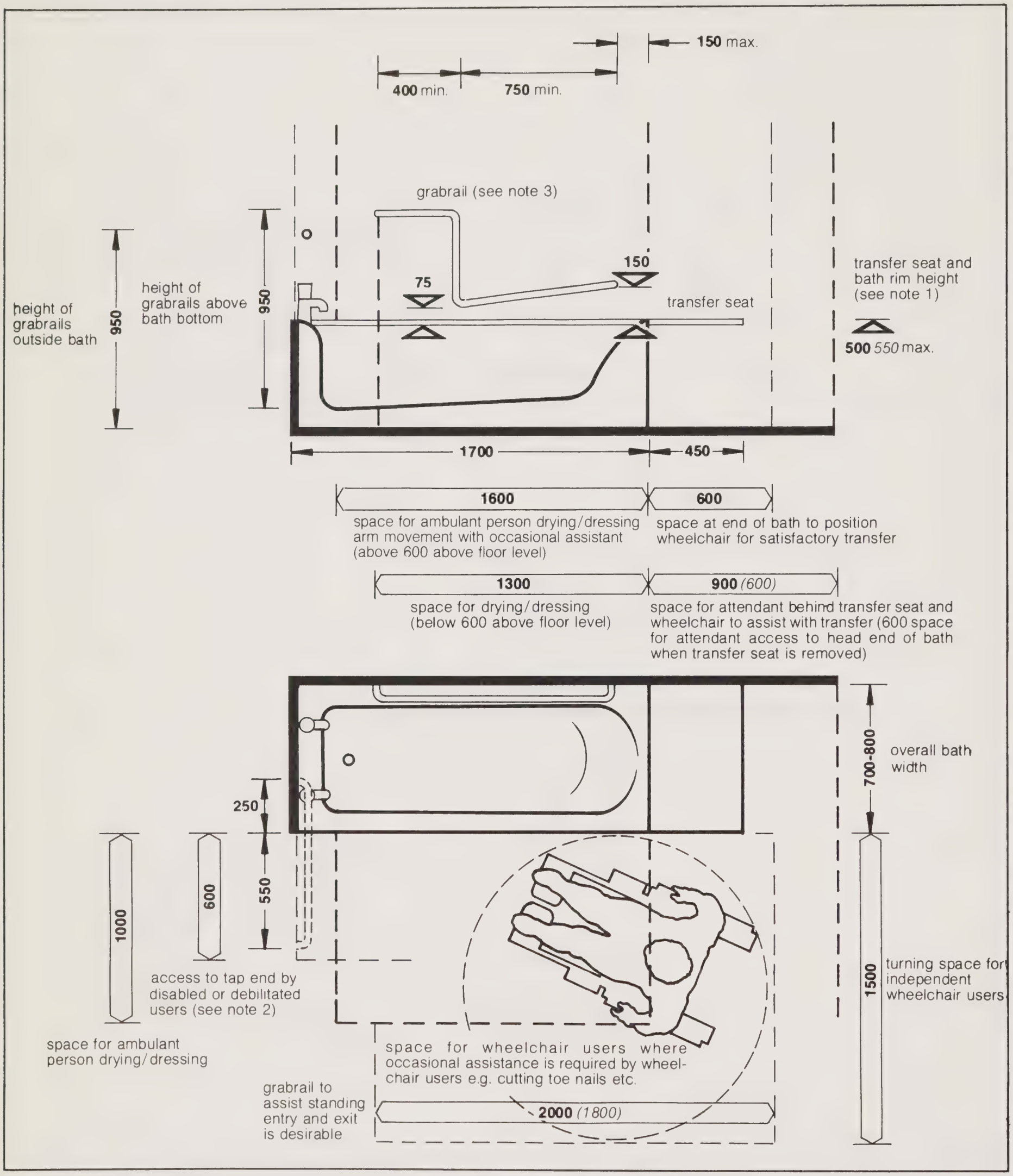
DHSS **Ergonomic data bank**
Component-user data sheet, not to scale

Bath

2B4

Wheelchair access

Users
Ambulant adult patients. Independent wheelchair users with minimal assistance.



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The recommended maximum height for fixed height baths is 500 but where principally used by wheelchair users 550 is recommended.

It is important that transfer seat height and bath rim should coincide as any step can cause difficulty during entry or exit. Similarly, wheelchair seat height should be standardised to facilitate the easiest possible transfer. The lower maximum of 500 is preferable for ambulant and semi-ambulant users.

2. Also desirable space for access by attendant and for cleaning bath.

3. Grabrail — 40-45mm (32 abs. min) grasping diameter.

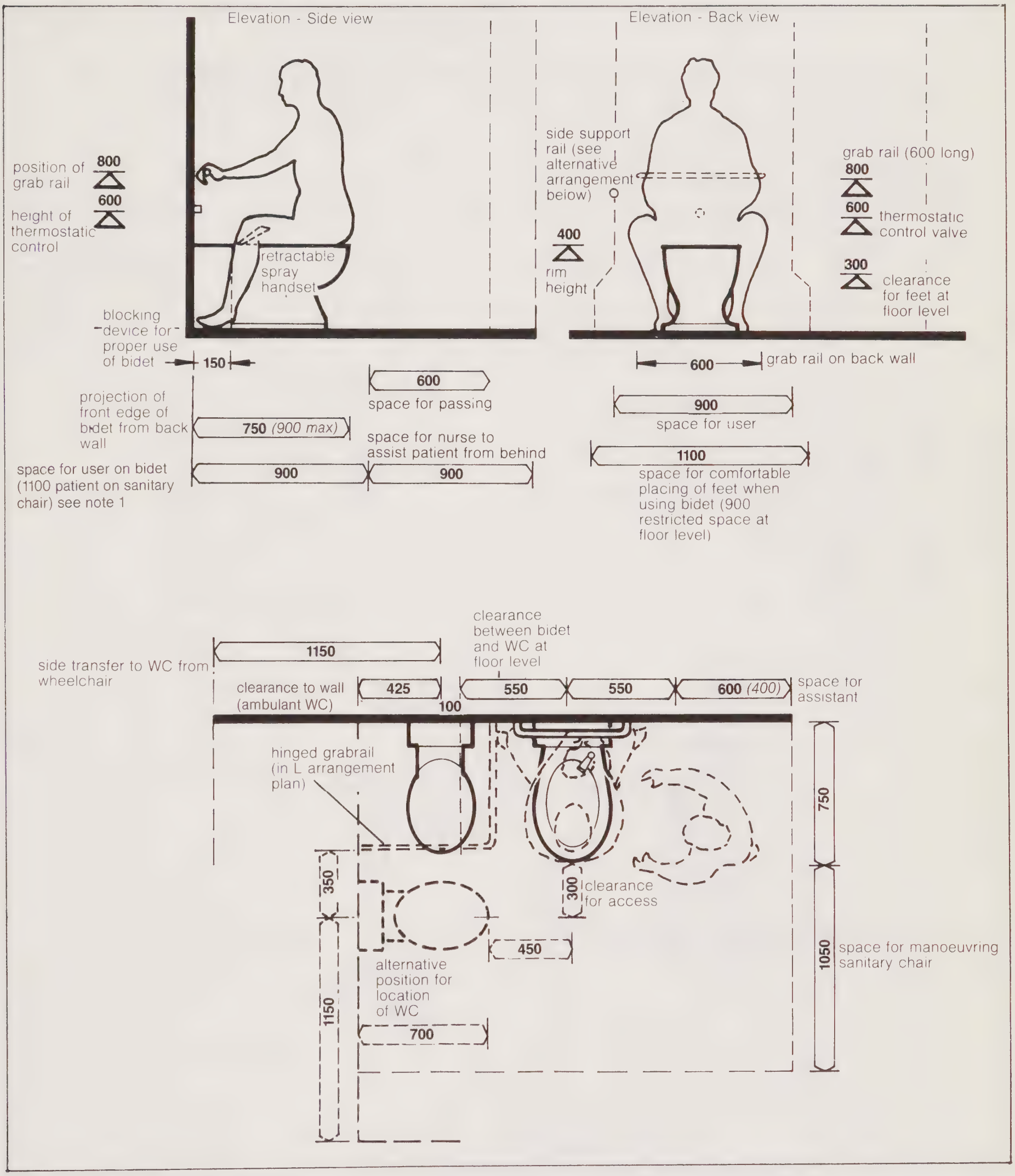
Activities:
Use of bidet for perineal cleansing. Space for transferring onto the bidet from the WC with or without assistance. Assistance may be provided by one or two nurses

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Bidet

2C1

Users:
Ambulant or semi-ambulant patients and patients on sanitary chairs; also possible use of wheelchair users (see note 1)



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The bidet is normally used in conjunction with the WC.

2. Wheelchair users must have some ability to stand in order to transfer from WC to bidet and back from bidet to wheelchair. Others would require to be manually lifted by 2 assistants. The 'L' shaped plan arrangement (with removable grab rail) is preferable for both categories of wheelchair users.

3. Spray handset should preferably automatically retract to a position over the bidet bowl to minimise possible spillage, or soiling of the handset in the bowl.

Activities:
Alternative screened door arrangements to provide privacy for patients in bathrooms, toilets or other assisted facilities

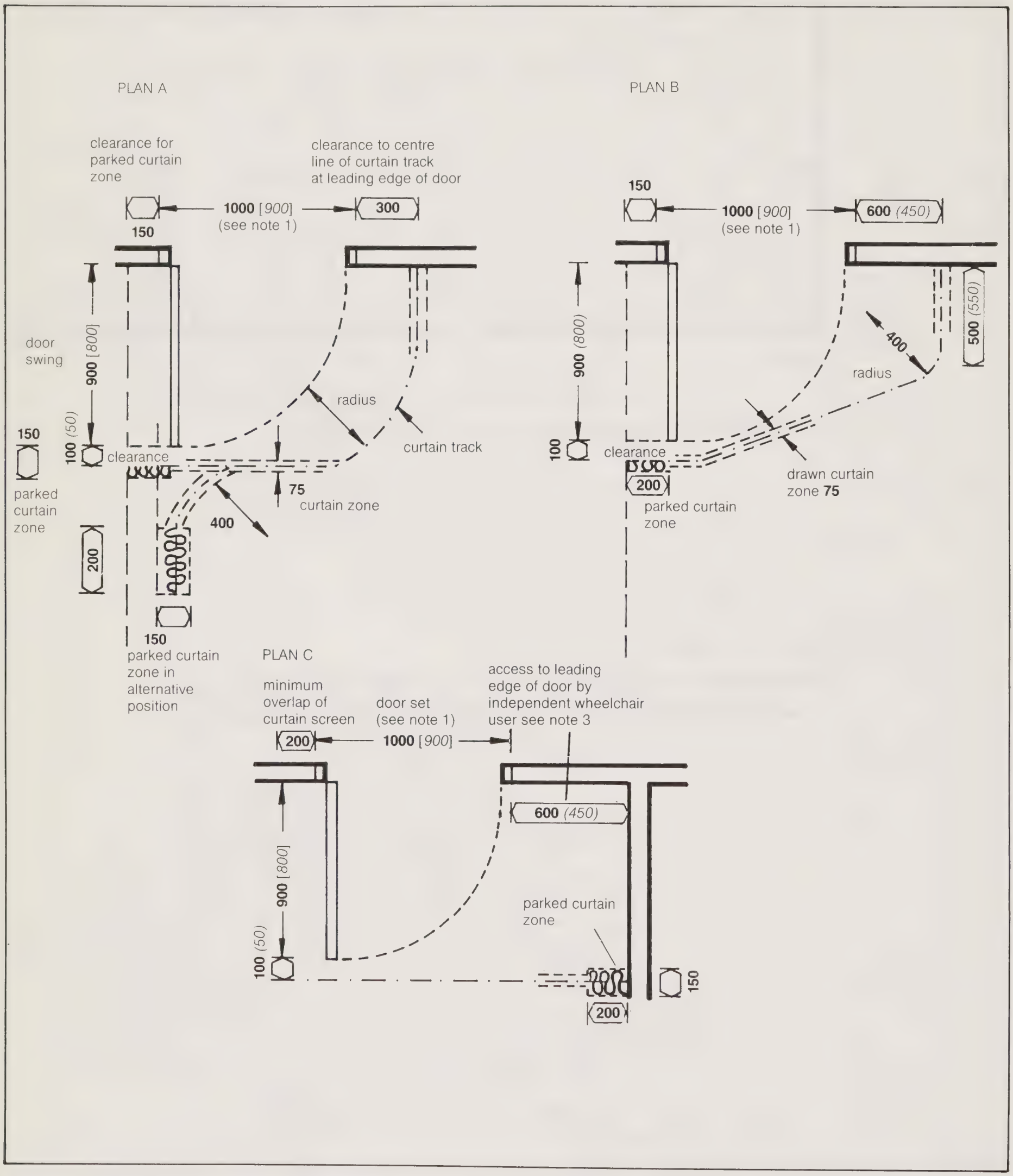
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

4A4

Door screen - single door

1000, 900 door sets (see note 1)

Users:
staff



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. It is not recommended that door sets smaller than 900 wide be used in patient areas in health buildings. Minimum 1000 wide door sets are preferred.

2. The minimum clearance dimensions shown allow for ambulant circulation only.

3. The critical requirement is for independent wheelchair use in this case, and the space required for this exceeds (ie will therefore accommodate) the space needed for ambulant staff access. Even the restricted space near the leading edge of the door is adequate for this purpose.

Activities:
Alternative screened door arrangements to afford privacy to patients in assisted bathrooms or other rooms where staff entry or exit is necessary during patient use.

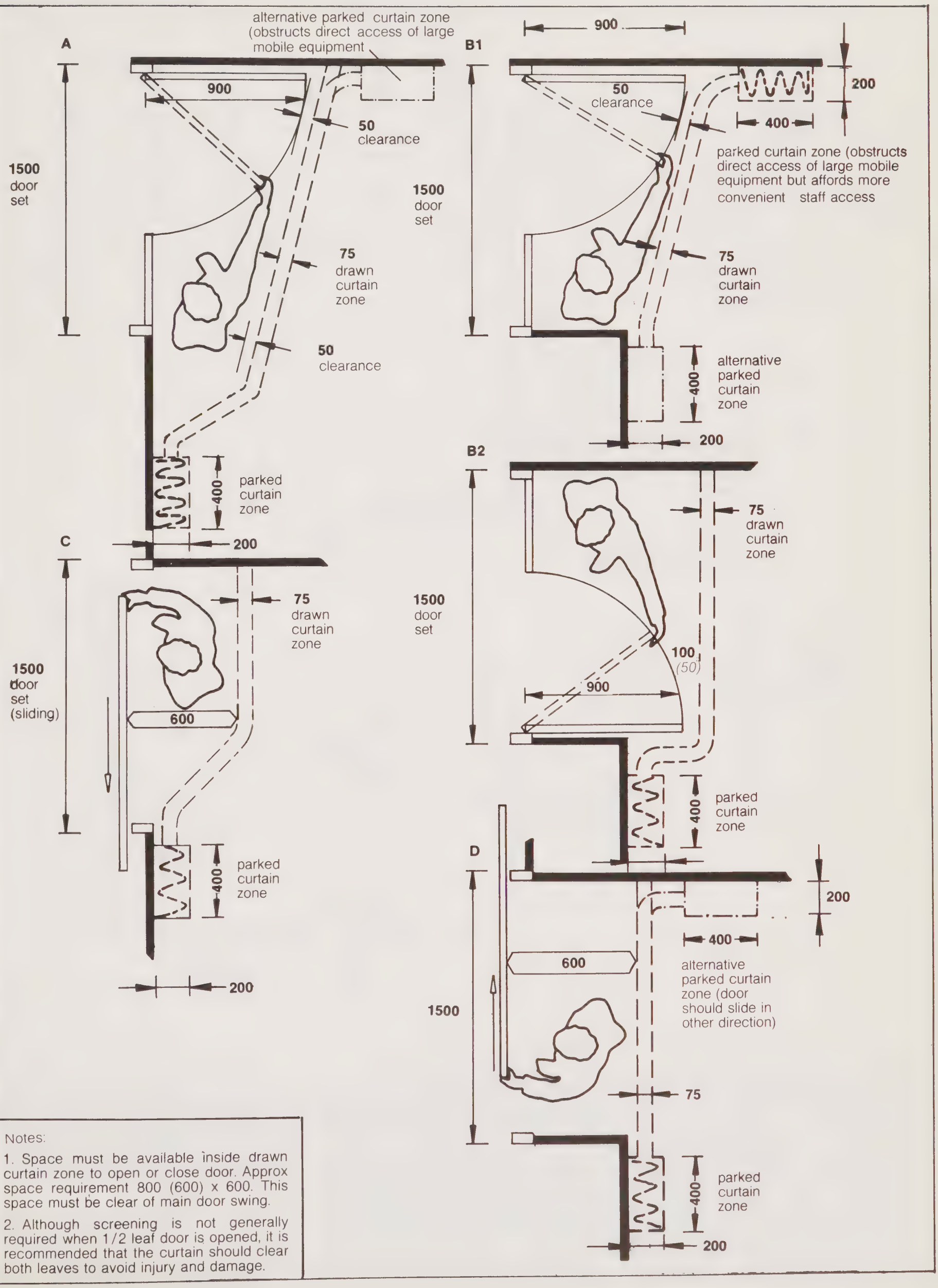
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Door Screens

4A3

(1500 door sets)

Users
staff



Notes:

1. Space must be available inside drawn curtain zone to open or close door. Approx space requirement 800 (600) x 600. This space must be clear of main door swing.

2. Although screening is not generally required when 1/2 leaf door is opened, it is recommended that the curtain should clear both leaves to avoid injury and damage.

Activities:
Grooming, and shaving, viewing head and shoulders only

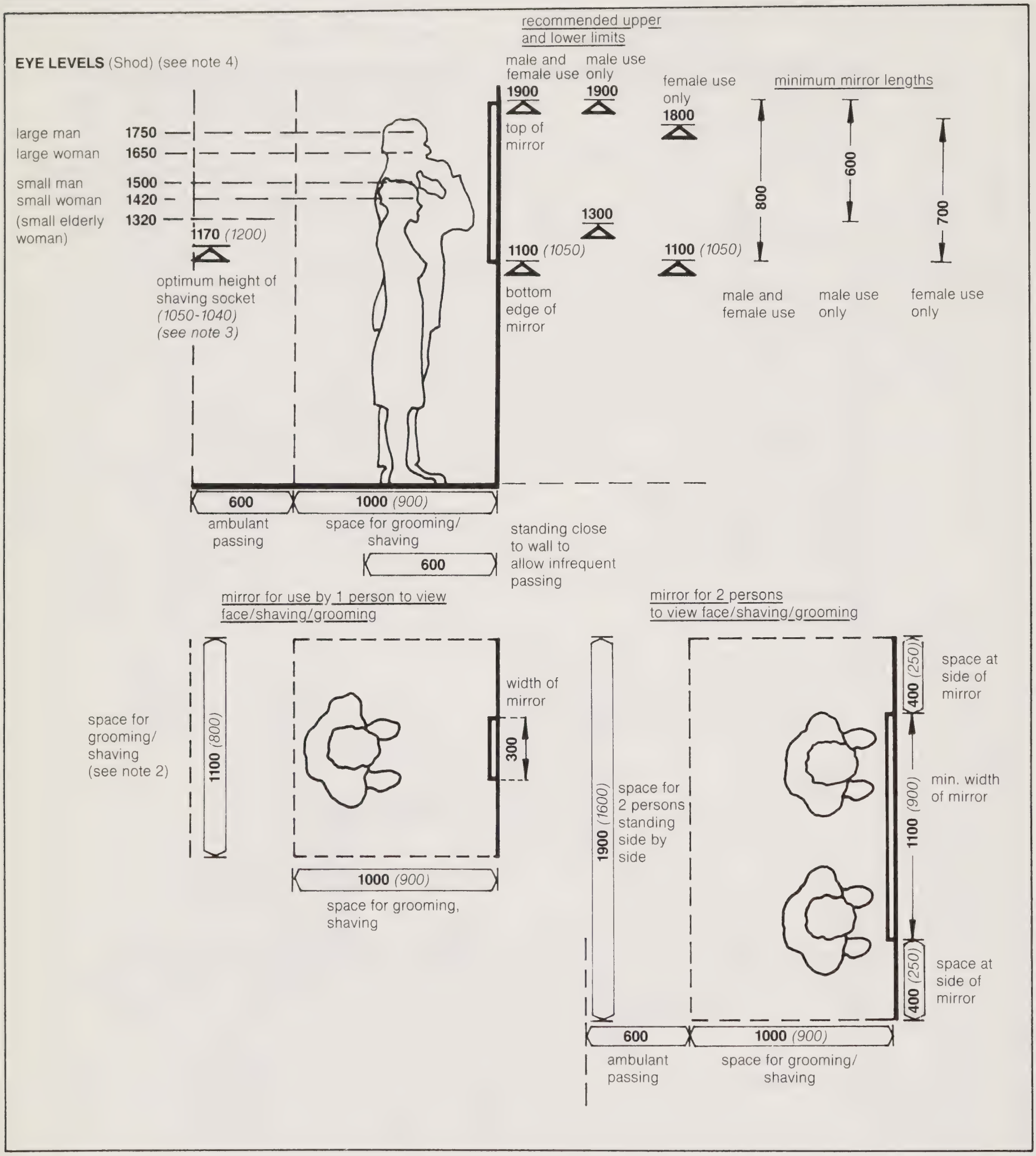
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Mirror

3D4

Wall mounted, standing use

Users:
adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Recommendations assume average viewing distance of 650 and provide minimum reflecting surface of 150 above eye level at least 200 below eye level. This provides a view of head and shoulders sufficient to adjust a tie, scarf or necklace. The top of the mirror should be high enough above eye level to adjust a normal hat or headscarf.

2. A lateral clearance of 800 is sufficient below waist level, but 1100 is essential above waist level for unrestricted activities such as adjusting hat, shaving, grooming. Restricted arm movements are however possible within an overall width of 800.

3. These recommendations refer to flush wall sockets. Side or vertically plugged units are also available and may be located up to 1650 and 1800 respectively above floor level. Vertically plugged units should preferably be not lower than 1400, but a position nearer the upper limit of the range is preferred. Flush units are generally regarded as safer to use.

4. Heel allowances are as follows; large man = 25, large woman = 40, small man and small woman = 10. These reflect the critical range from outdoor footwear to light slippers for indoor use which affect viewing needs.

Activities:
Grooming and dressing viewing trunk or whole body.

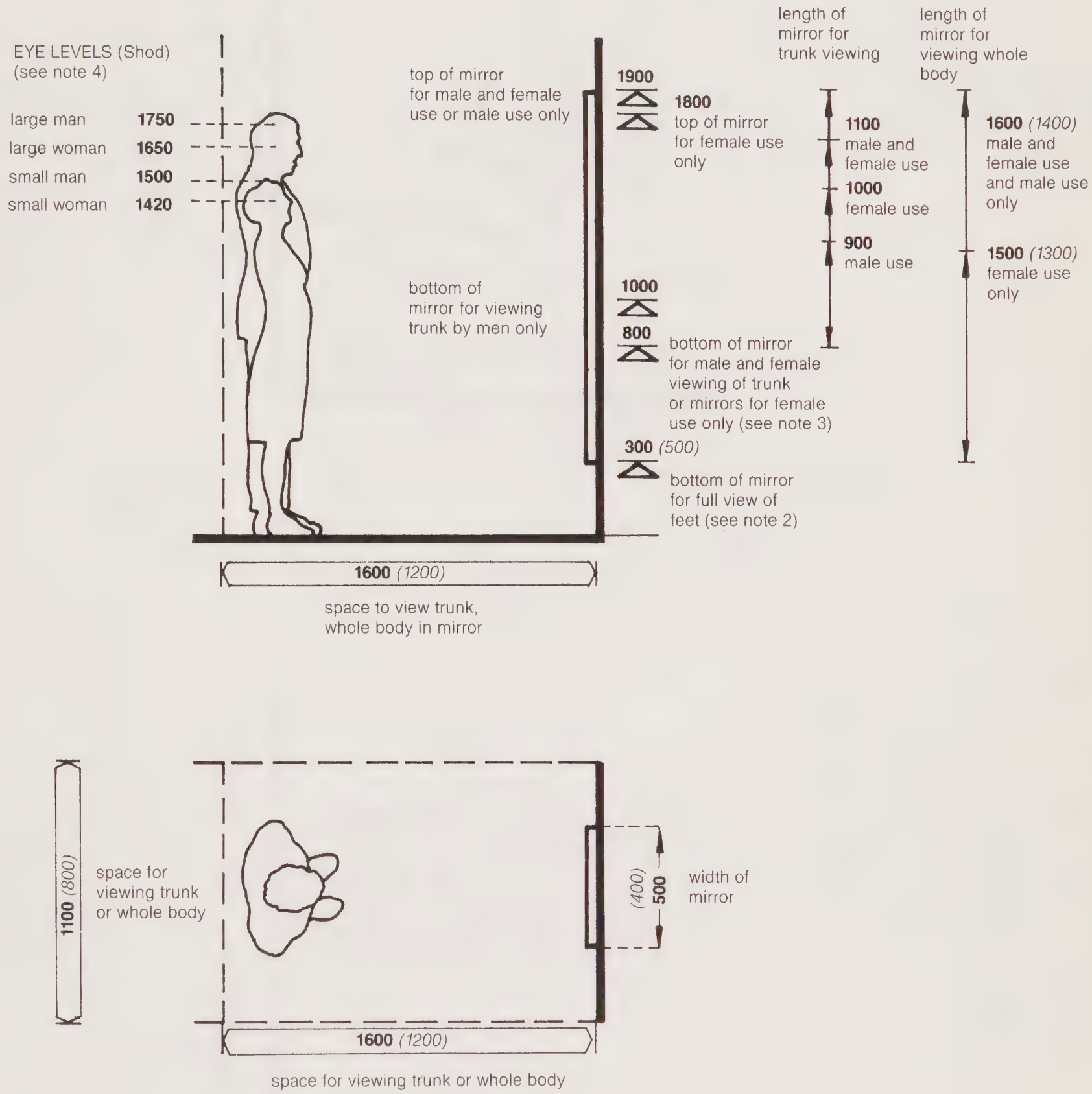
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Mirror

3D3

Wall mounted, standing use

Users:
Adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. A minimum reflecting surface of 150 above eye level is recommended for grooming hair and adjusting hat or headscarf.

2. A maximum height of 300 above floor level will also accommodate viewing of the feet from a seated position. 500 is the maximum height of the base of a full length mirror to allow a standing person full view of their feet.

3. Minimum height also accommodates mirror use by a small elderly woman.

4. Heel allowances are as follows: large man = 25, large woman = 40, small man and small woman (also small elderly woman) = 10. These reflect the critical range from outdoor footwear to light slippers for indoor use, which will affect viewing needs.

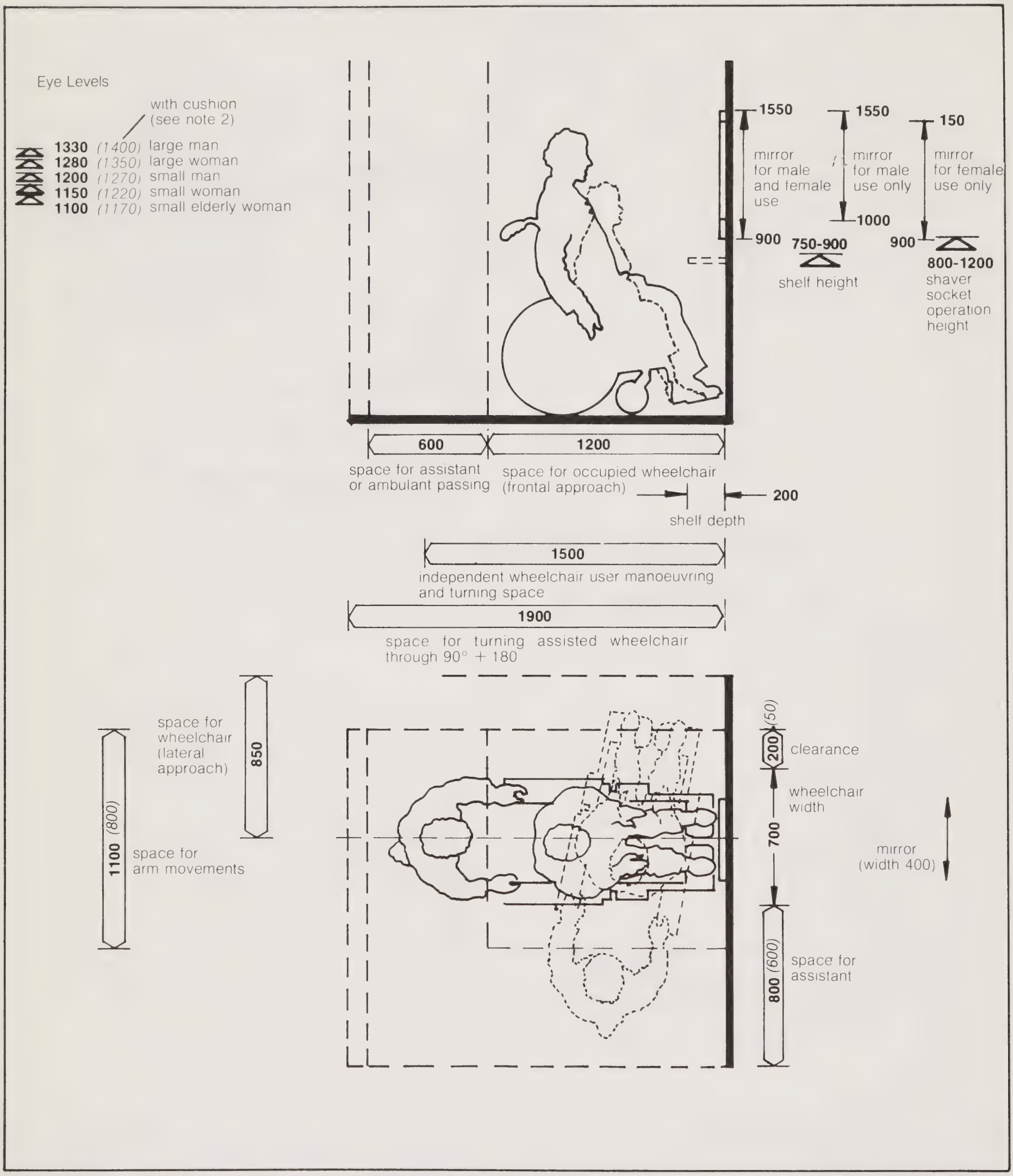
Activities
Use of mirror for grooming (also shaving)

DHSS **Ergonomic data bank**
Component-user data sheet, not to scale

3D1

Mirror
wall mounted

Users
wheelchair users - independent and assisted



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Recommendations assume average viewing distance of 650, and provide minimum reflecting surface of 150 above eye level and at least 200 below eye level. This provides a view of head and shoulders, sufficient to adjust a tie or necklace.

2. Where a 100mm deep seat cushion has been assumed to increase head and eye levels by 70mm, or to provide an effective maximum wheelchair seat height of550.

Activities
Drying and dressing patient on hoist

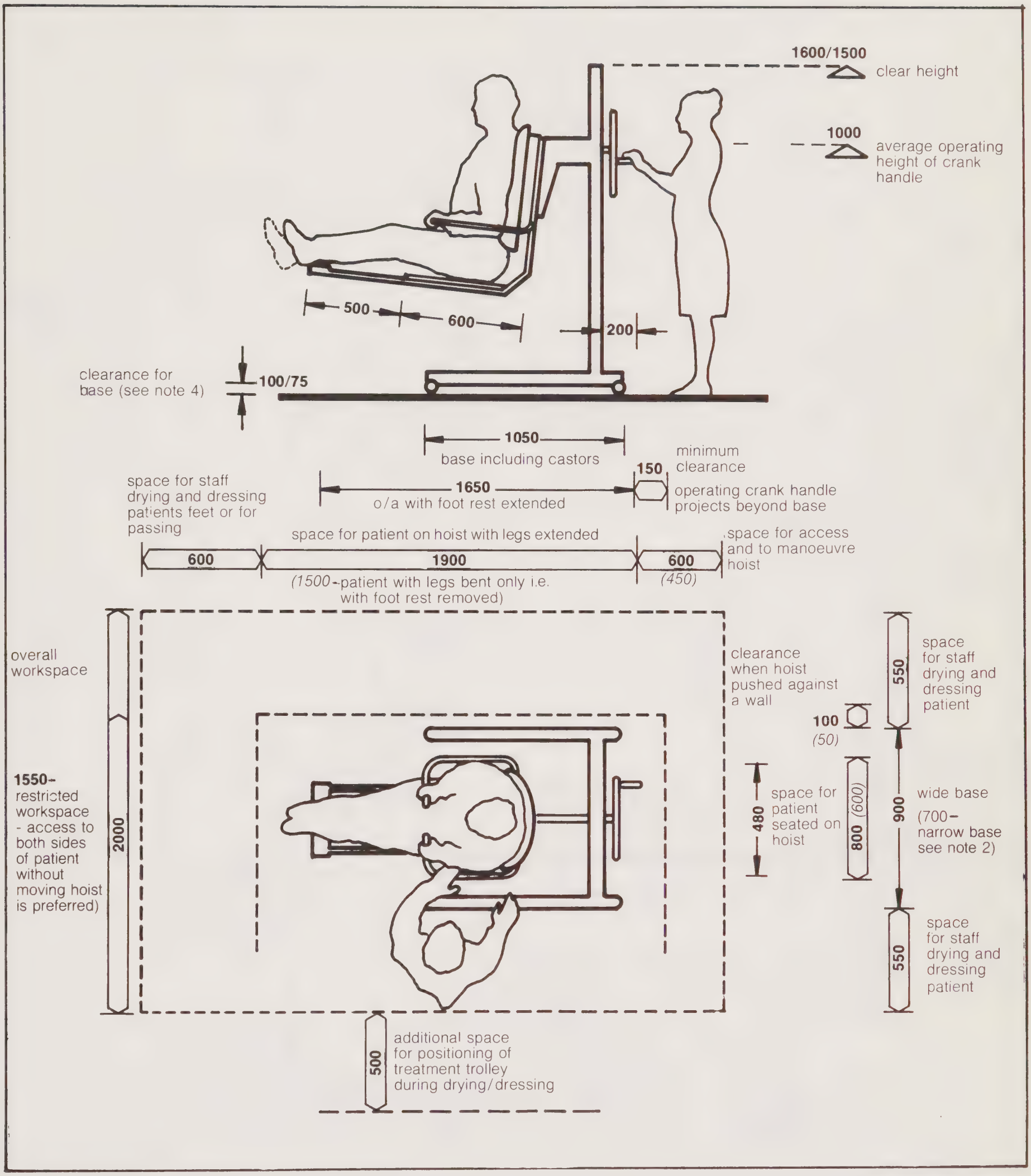
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Patient hoist

8A5

with chair attachment

Users
1, 2 or more nurses + patient



1350 *(1300)*

Preferred minimum — *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Chair hoists are used more frequently than sling hoists because they are easier to use. They may, however, be too small for very obese patients and unsatisfactory for patients who require greater trunk support for whom a sling hoist would be more satisfactory.

2. The wider base is recommended for use in all hospital/health building situations because it affords better stability, particularly when patient is in the raised position e.g. over a bath. (Stability can be especially affected by linen or mats on the floor where the narrower base is more vunerable to tipping when it meets the obstruction).

3. Mechanical hoists are preferred to hydraulic mechanisms because they are less prone to failure (which can be dangerous for both patient and assisting staff).

4. Larger castors (75mm) are also preferred as these are easier to manoeuvre.

5. Appropximate rated lifting capacity: 160kg (350 lbs). Approximate lifting range: 900

Activities:
Drying and and dressing patient in hoist

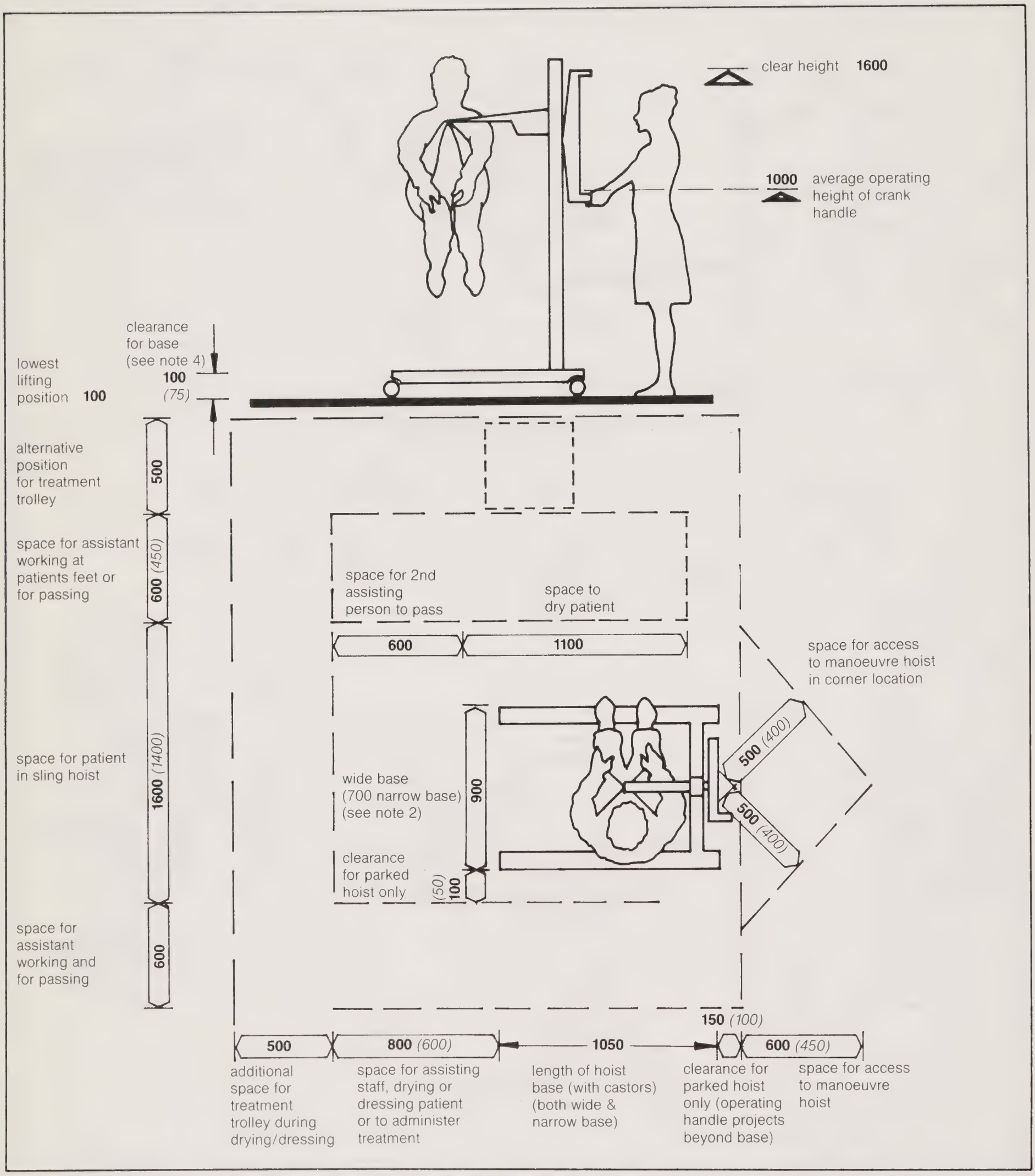
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

8 A6

Patient Hoist

with sling attachment

Users:
1, 2 or more nurses + patient



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The sling hoist tends to be used less frequently than the chair hoist because it is more difficult and takes longer to use. It is, however, used for larger and more difficult patients for whom the chair hoist offers inadequate support and would therefore be both uncomfortable and potentially hazardous. It is not recommended, however for moving patients over long distances.

2. The wider base is recommended for use in all hospital/health building situations because it affords better stability, particularly when patient is in the raised position e.g. over a bath (stability can be affected by linen or mats on the floor, where the narrower base is more vulnerable to tipping when it meets the obstruction).

3. Mechanical hoists are preferred to hydraulic mechanisms because they are less prone to failure (which can be dangerous for both patient and assisting staff).

4. Larger castors (75mm) are also preferred as these are much easier to manoeuvre.

5. Approximate rated lifting capacity: 160kgs (350lbs). Approximate lifting range: 900.

Activities
Manoeuvring patient into and out of bath (access from head end of bath)

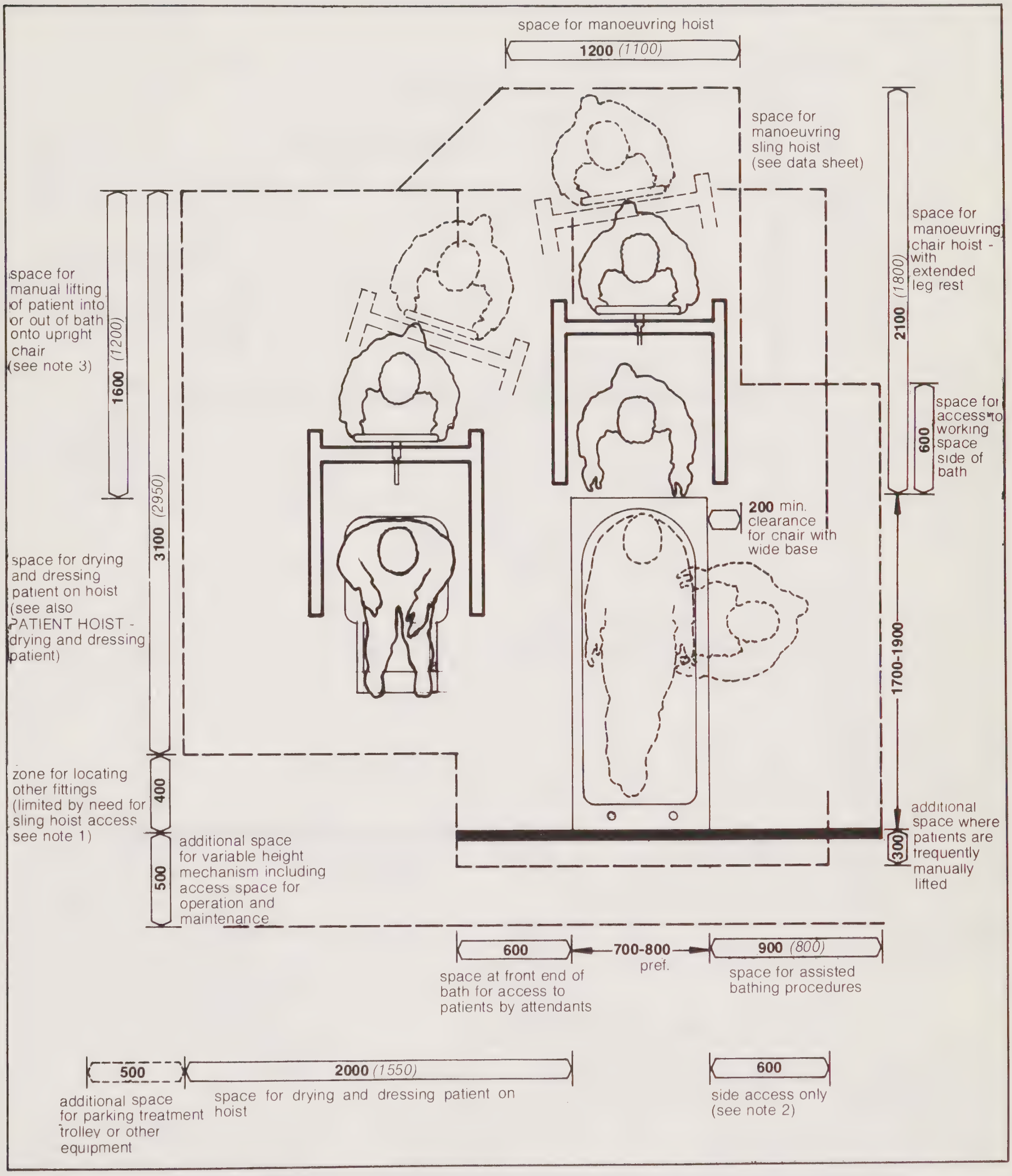
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Patient Hoist

8A1

chair type

Users
2 or more nurses and patient



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes

1. Assisted bathrooms should preferably provide space to use both CHAIR and SLING HOISTS. Space at side of bath should therefore accommodate manoeuvring of SLING HOIST

2. Does not provide satisfactory workspace for large male or female assisting staff.

3. Add 300 (200) where space is to accommodate wheelchair.

Activities
Manouevring patient into and out of bath (side access)

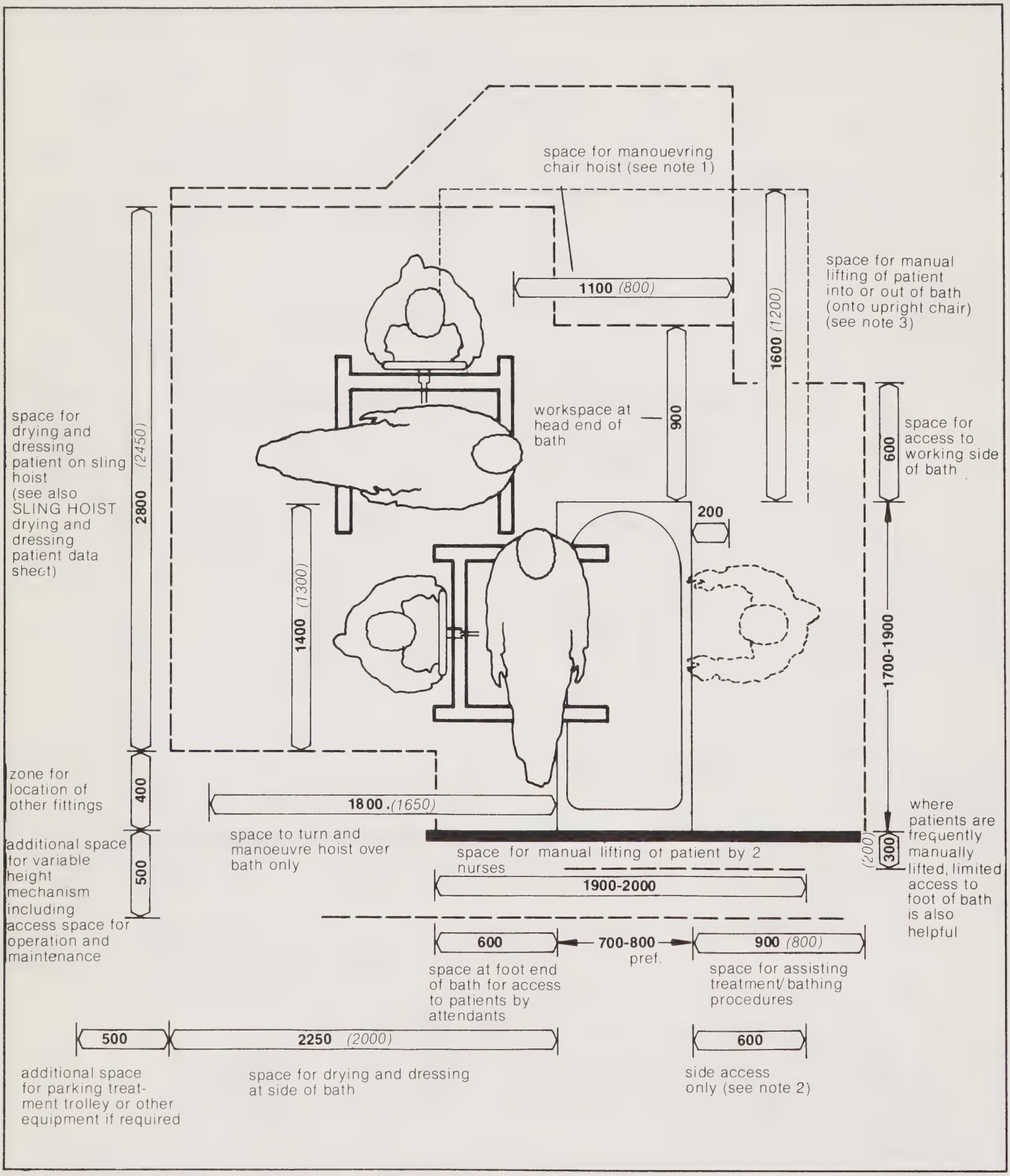
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Patient Hoist

8A7

with sling attachment

Users
2 or more nurses and patient



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes.

1. Assisted bathrooms should preferably provide space to use both CHAIR and SLING HOISTS. Space at head of bath should therefore accommodate manoeuvring of CHAIR HOIST.

2. Does not provide satisfactory workspace for large male or female assisting staff.

3. Add 300 (200) where space is to accommodate wheelchair.

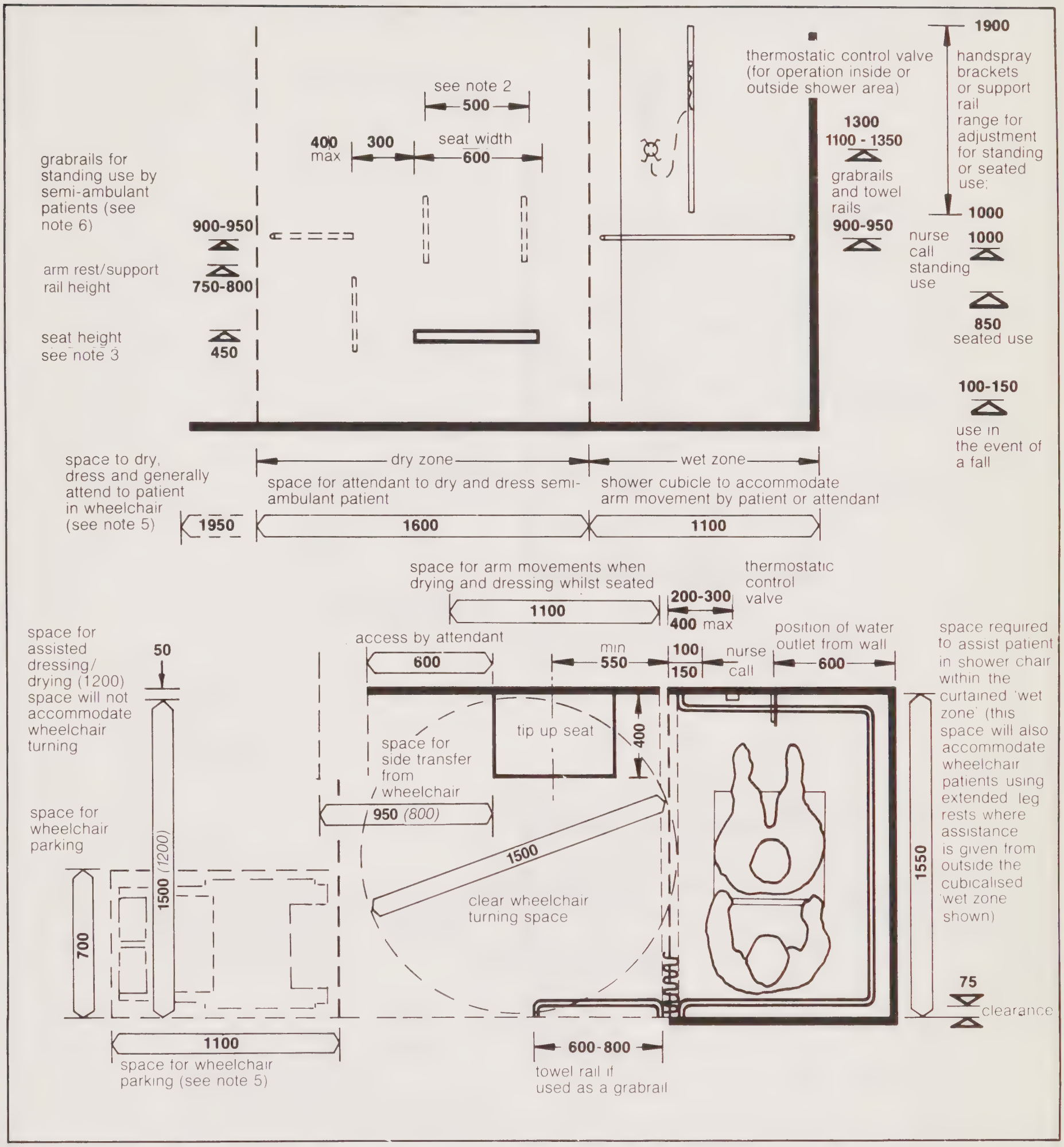
Activities:
Showering, including undressing/dressing, drying and transferring

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Shower

2D1

Users:
Partially capable patients with assistance and wheelcair patients



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The flexible hose outlet should be positioned so as not to impede clear access to the control valve.

2. Seated patients should preferably have support rails/rim (tip-up type) usable from tip-up seat. The rails/rests should be 300 above the supporting seat height.

3. A higher seat height of 500 is preferred where the facility is frequently used by wheelchair patients who normally use 50mm deep (or deeper) seat cushions.

4. The position of the user space for drying/dressing (dry zone) can be varied in relation to shower cubicle (wet zone) provided that the individual activity requirements (patient transfer, wheelchair turning, drying and dressing) are fully maintained.

5. Where the space allowed for drying/dressing is the minimum recommended (ie 1600 x 1500) it is preferred that the additional space either inside or conveniently outside the room be available to park the transporting wheelchair.

6. It is preferable that whenever possible and accessible a continuous handrail support system surrounding the ambulant user areas be available to semi-ambulant patients. This will generally not be possible, however, immediately behind the tip-up seat where a grabrail would impede use of the seat.

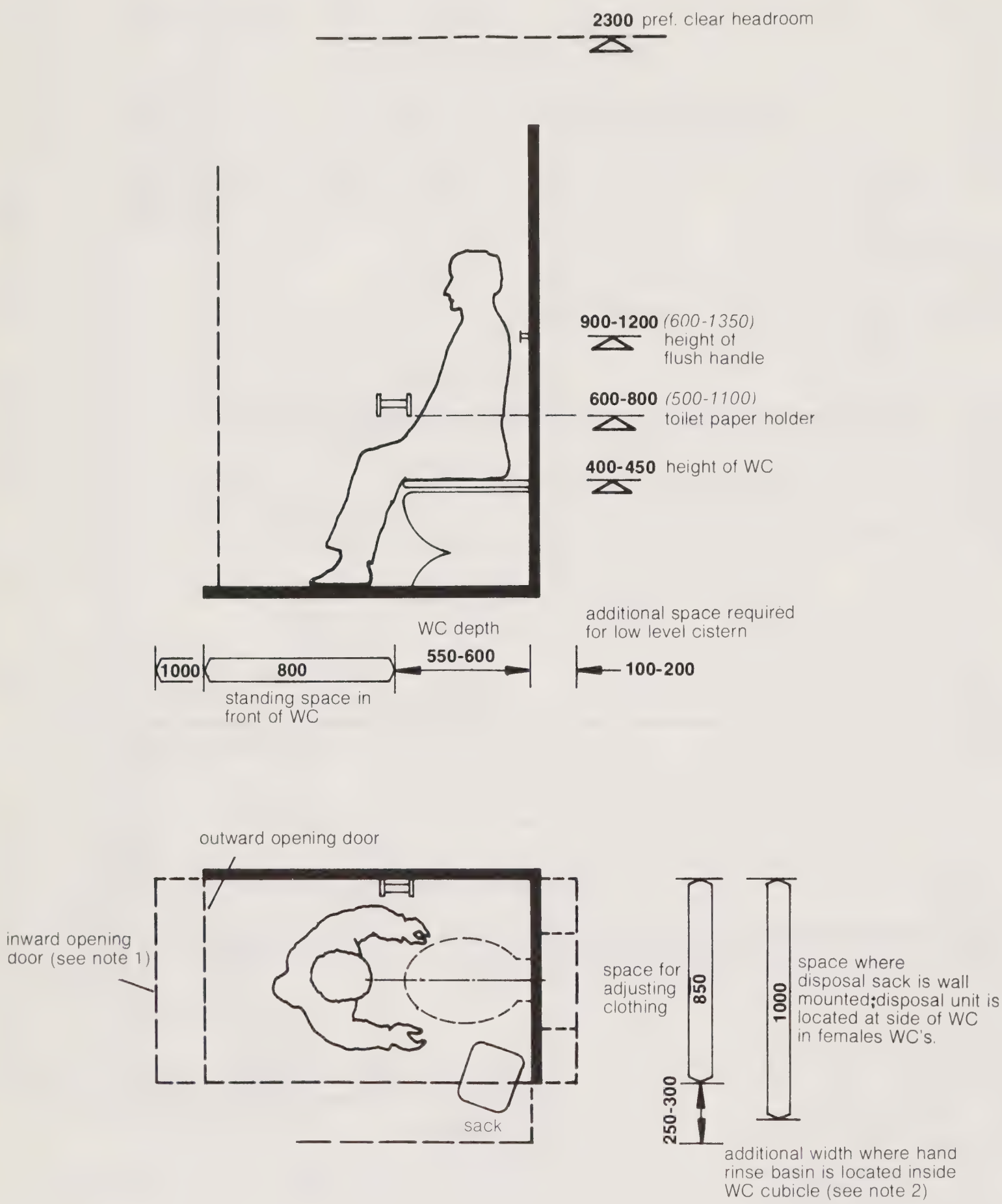
Activities
Use of WC

WC
adult

2G1

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

User
staff, male and female



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes:

1. Additional space may be required in front of WC where inward opening door width is greater than 750.

2. Hand-rinse facilities should be available in or adjacent to all WC cubicles.

3. These recommendations are not adequate for use by disabled staff, and assumes that specific alternative facilities will be available for their use (see WC-independent, semi-ambulant and assisted data sheets).

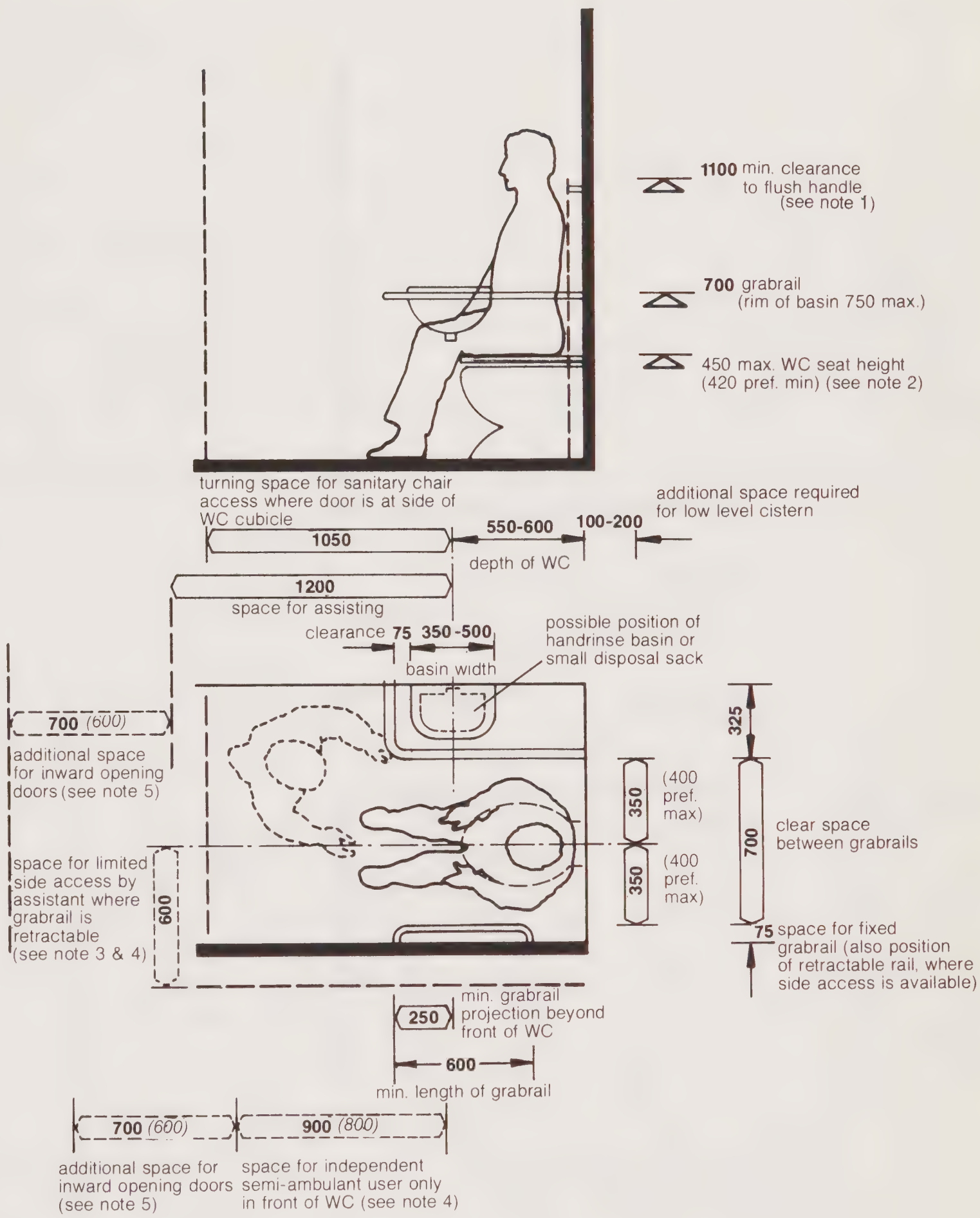
Activities
Use of WC., with space for person assisting in front of WC only.

DHSS **Ergonomic data bank:**
Component-user, data sheet, not to scale

WC
adult

2G2

Users
independent, semi-ambulant and assisted ambulant. (also sanitary chair access)



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes:

1. Lower flush handle will obstruct satisfactory sanitary chair location over WC.

2. Higher WC seats will seriously obstruct sanitary chair access over WC.

3. Space for access by attendant to side of WC is generally preferred for semi-ambulant facilities, also that a hand-rinse facility should be accessible from a seated positioned on the WC.

4. 900 will allow for grabrail for standing use to be located on front wall. This is a desirable facility. This dimension is minimally acceptable where space for assistant is available at side of WC. The full dimension, however, is more satisfactory in that it allows greater flexibility in the way in which the WC may be approached.

5. 900 door set is preferred. 800 minimum.

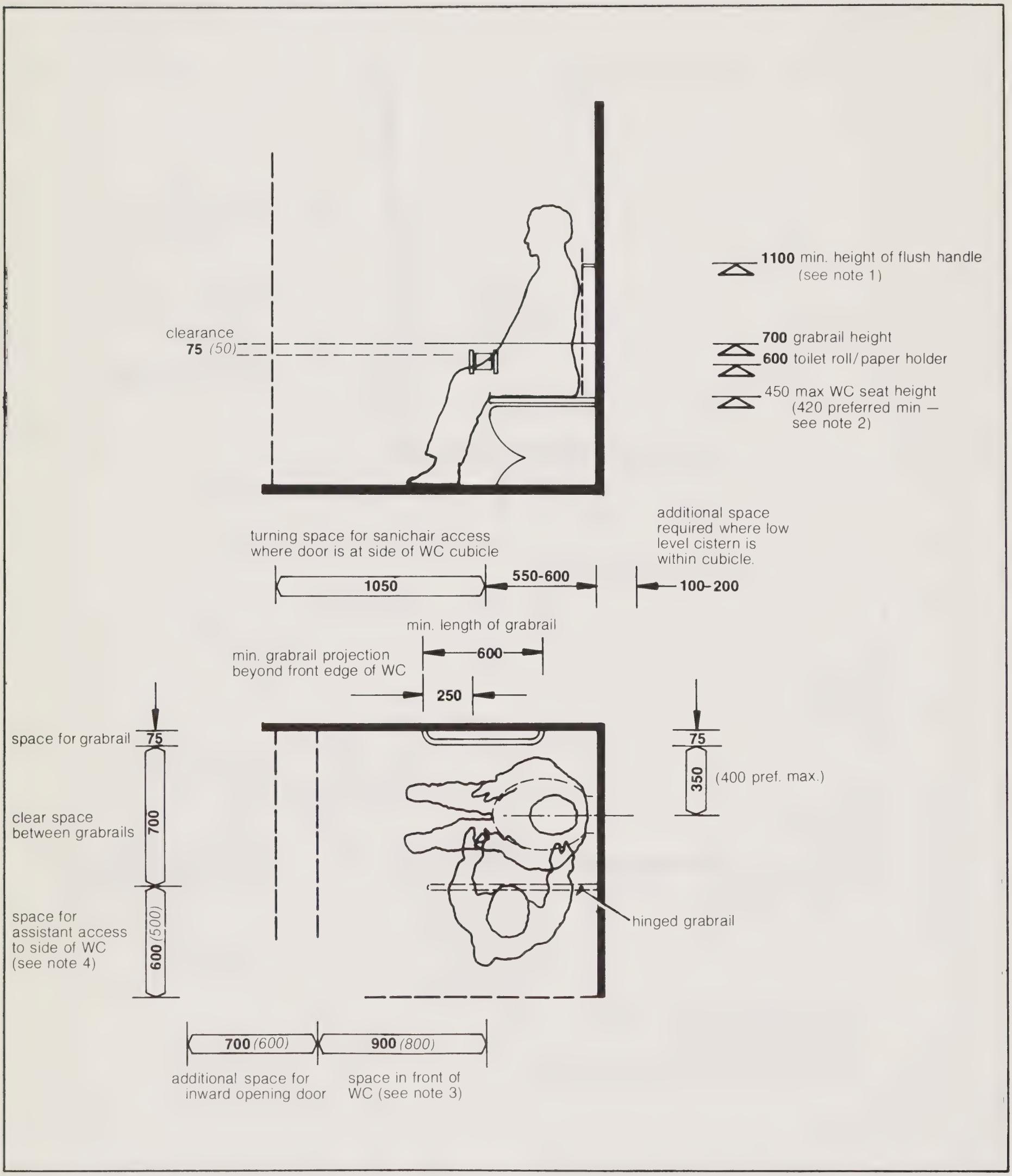
Activities
Use of WC, with side access space for assistant

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

WC
adult

2G3

Users
independent, semi-ambulant and assisted ambulant
(also sanitary chair access)



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes:

1. Lower flush handles will obstruct satisfactory sanitary chair location over WC.

2. Higher WC seats will seriously obstruct sanitary chair access over WC.

3. 900 will allow for a grabrail for standing not to be located on the front wall. This is a desirable facility for independent and assisted users. 1200 (1000) is desirable for full unimpeded assistance from directly in front of WC but this is not seen as essential in this wider cubicle.

4. This allows side access when hinged grabrail is in lowered position. This is desirable where full assisted use is frequent.

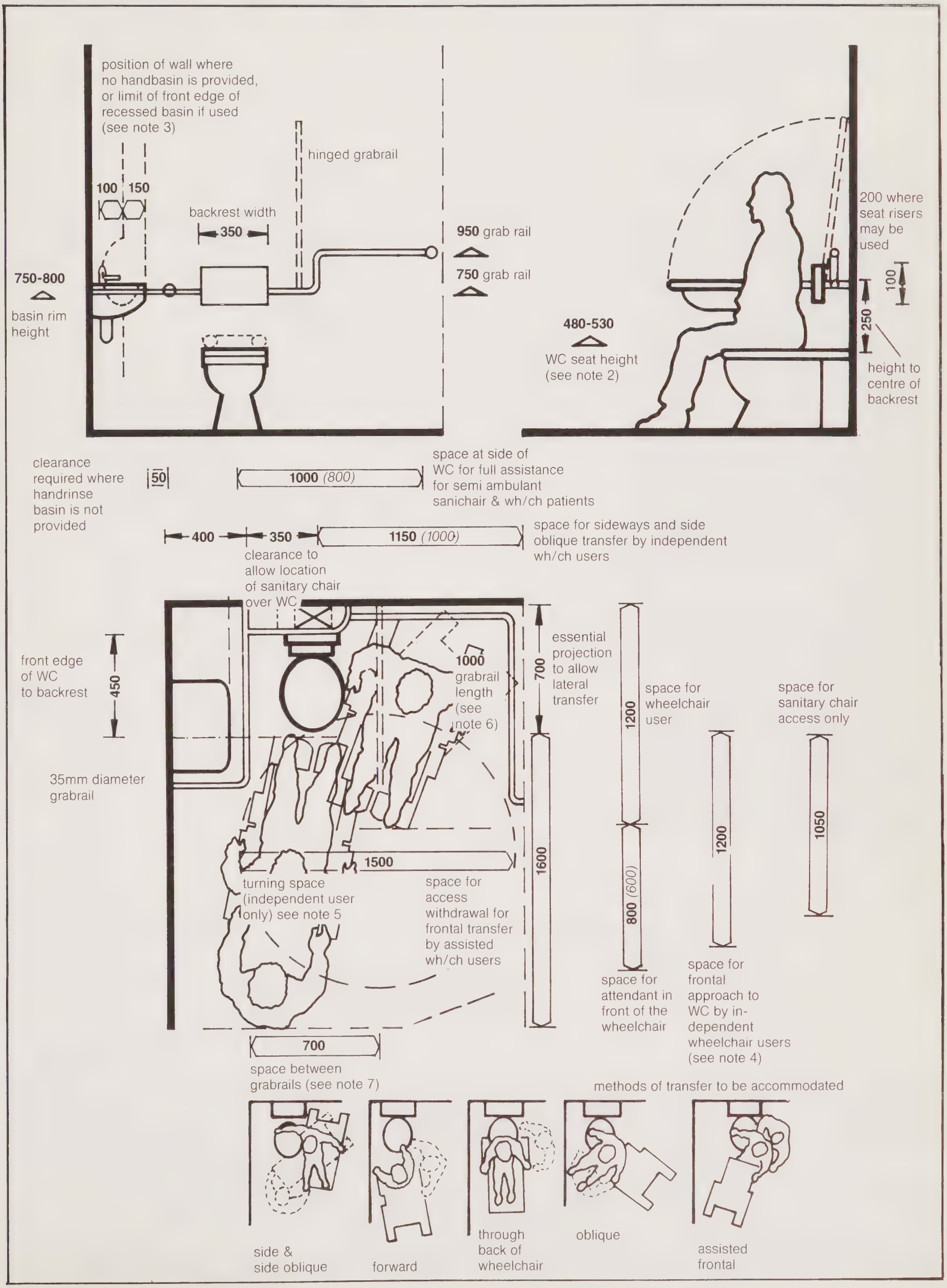
Activities:
Use of WC by wheelchair users, also use of basin for hand washing, whilst seated on WC (see notes on following page)

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

2G4

WC
adult, hospital type

Users:
wheelchair users - independent & assisted



WC

2G4a

Adult, hospital type

1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:

1. It is recommended that handrinse facilities accessible from the WC be provided in all wcs used by the wheelchair disabled.

2. For transfer from a wheelchair the wc seat must be higher than the normal seat height of approx 430. The minimum satisfactory height for the transfer from a wheelchair is 480, and where deep cushions are used on the wheelchair a seat height of 530 is required. Removable wc seat risers can be used if they are stable, but many tend not to be so in practice. Aerated cushions can be used to increase seat height by approx 50mm plus providing good cushioning characteristics for those patients who need to spend long periods seated on the wc or are prone to injury due to sensory loss.

3. Handrinse basin dimensions vary 250-450. Basins which project less than 300 tend to be unsatisfactory in that they do not adequately contain splashing and basins over 350 deep require excessive sideways reach from wc seat, to taps etc. Recessed basins are generally not favoured because they tend to be too shallow, and restrict access and movement of hands by some disabled users.

4. This assumes that adequate manoeuvring space is available elsewhere in the room (see note 5 below).

5. A clear space of 1500 diameter, as part of a larger space which also contributes to the space available for wheelchair manoeuvring, is generally satisfactory for most independent wheelchair turning conditions.

6. A minimum length of 1000 will also allow the facility to be used safely by the semi-ambulant.

7. Ideally the space between grabrails should be less than 700 but they must be positioned symmetrically over the wc, and must not obstruct access to the wc by patients of wheeled sanitary chairs. The minimum to allow this is 700, but this dimension must not be exceeded as it will significantly reduce the effectiveness of the handrails as an aid to disabled users.

Activities:
Dual access WC affording full assistance by two persons, including lateral transfer from a wheelchair positioned either side of the WC.
This facility is particularly useful for physically dependent eg. elderly.

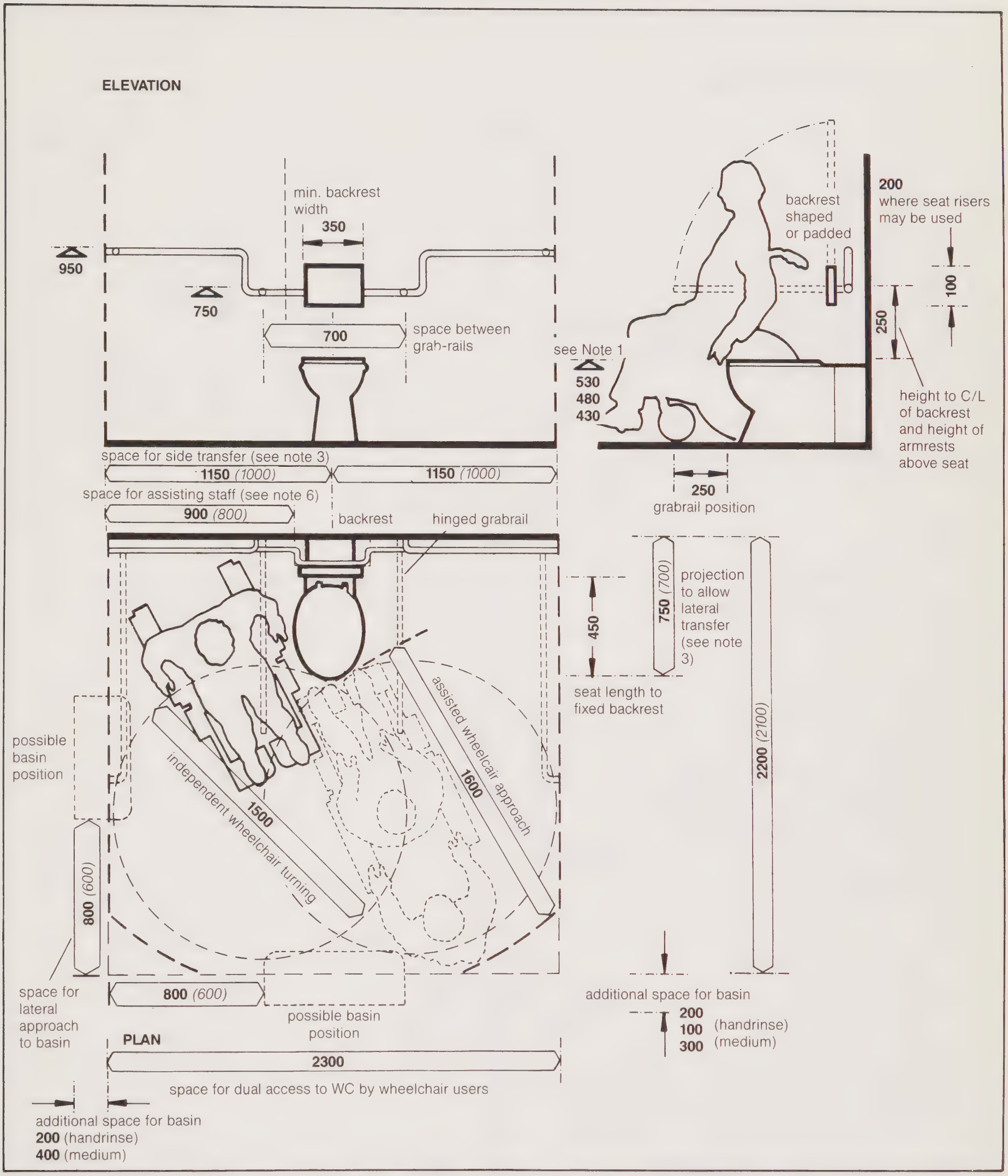
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

WC

2G5

Adult hospital type

Users:
Assisted, independent and wheelchair users



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. For satisfactory transfer from a wheelchair a higher seat height is required. Removable seat risers may be used if they are stable during use.

2. Shaped backrest — plan

200 min

3. Restricted space at side of WC will not allow angled approach — which is preferred by many wheelchair users. Where WC projection is restricted to 700 the full 1150 side transfer space is essential.

4. Structure at back of WC pan may be extended to support backrest.

5. Additional space for assisted users achieved by using corners of space.

6. Space for assisting staff should preferably be clear of wall mounted grabrail as rail may restrict kneeling or bending postures.

2. Furniture and Fittings

2. Furniture and Fittings

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Activities
Washing, wringing and drying mops.
Filling and emptying buckets

DHSS **Ergonomic data bank**
Component user data sheet, not to scale

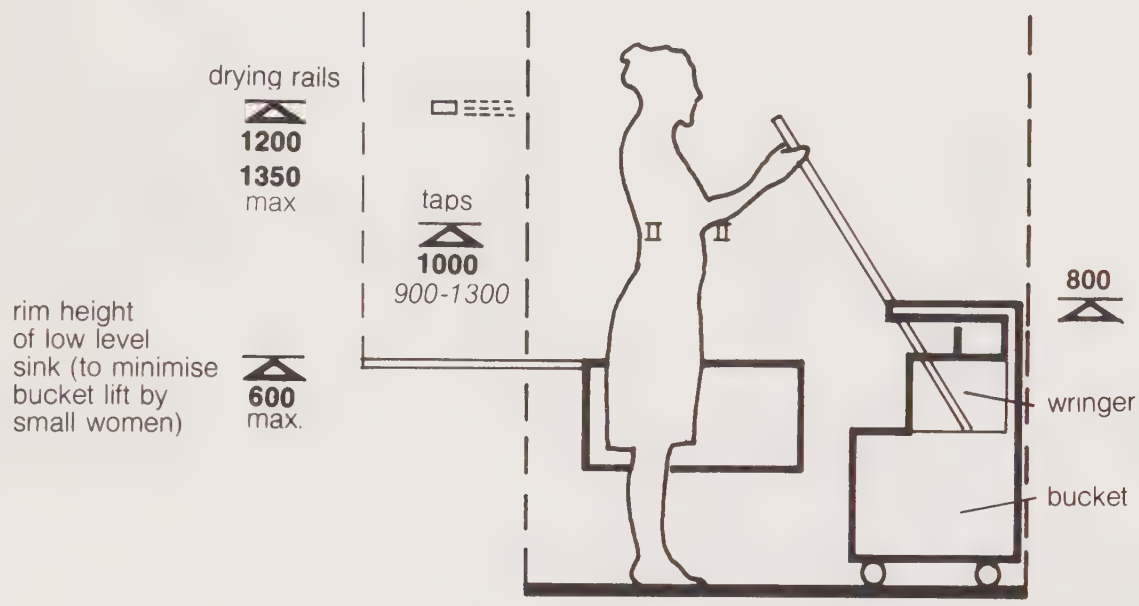
Bucket trolley

8G1

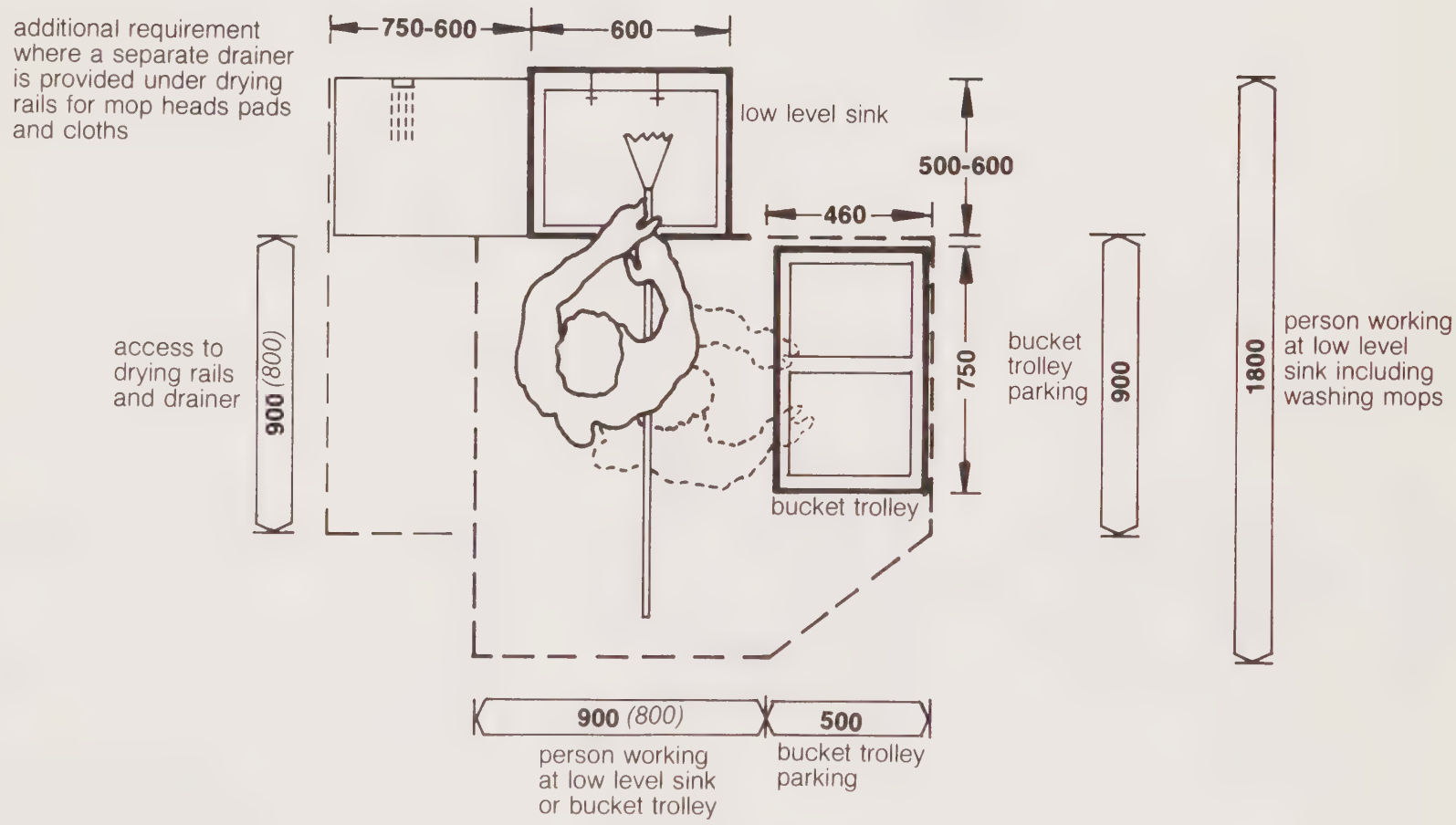
Double with wringer

Users:
Domestic staff

ELEVATION



PLAN



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Activities
Sitting, relaxing, drinking coffee, reading, informal discussion etc.

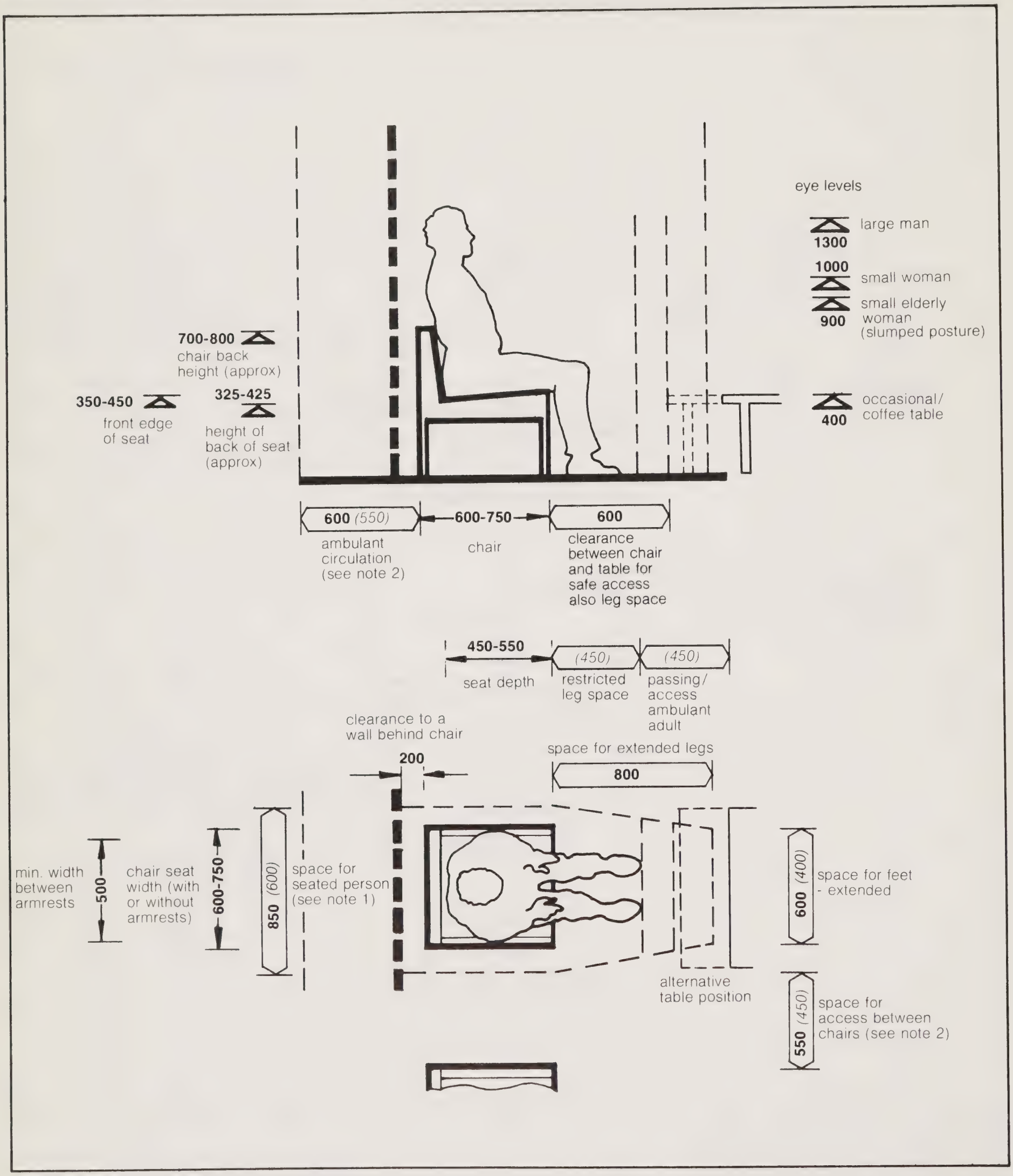
DHSS **Ergonomic data bank:**
Componentn-user data sheet, not to scale

Chair

3B4

Semi-easy, lowback with or without arms

Users
Adults — staff



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes

1. When seats are pushed close together to form rows the average user space dimensions of 750 for seats with arms and 650 for seats without arms should be used.

2. 800 is the minimum dimension to accommodate circulation by patients using sticks or other walking aids.

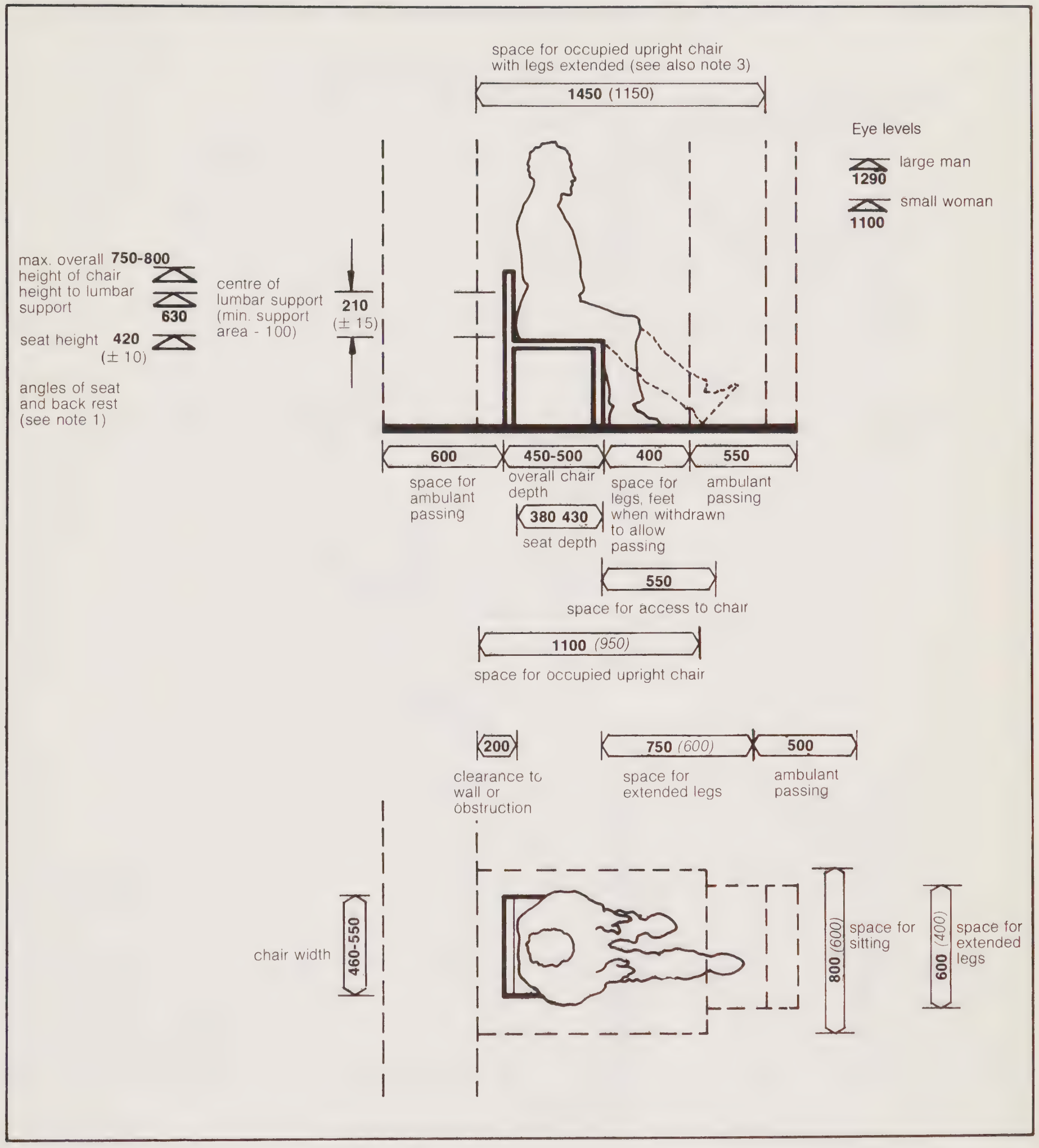
Activities
sitting

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Chair
Upright

3B2

Users
adults (fully capable)



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:

1. Maximum angle of seat plane 5° (3° preferred). The seating surface may be flat, sloped or include dishing. Any dishing should not exceed 10mm in depth and occur in the back 2/3 of the seat length, with the deeper part 3/4 length back from front edge; alternatively where a seat is substantially flat a slight transversal curve of the upholstery is permitted, provided that no part is more than 25mm higher than any other. The upper surface of the front edge of the seat should be resilient or rounded.

2. Ergonomic objectives for chair.
a) Shod feet should be flat on the floor with no pressure at front of seat between seating surface and thighs.
b). Front edge of seat must not impose pressure on back of legs i.e. seat length must be adequate but not too long.
c). The chair should provide a firm back support in the lumbar region but below the shoulder blades.
d). Preferably there should also be adequate clearance between the backrest and seat to allow free movement of the buttocks.
e). The space under the seat should be sufficient to allow the feet to be placed under the chair to assist the change from seated to standing position.

3. Space for occupied upright chair with legs extended should be 1450 (1150). Restricted space for visitor, in front of table or desk 1150 but 1250 preferred.

4. See also BS 59 40: Part 1 : 1980

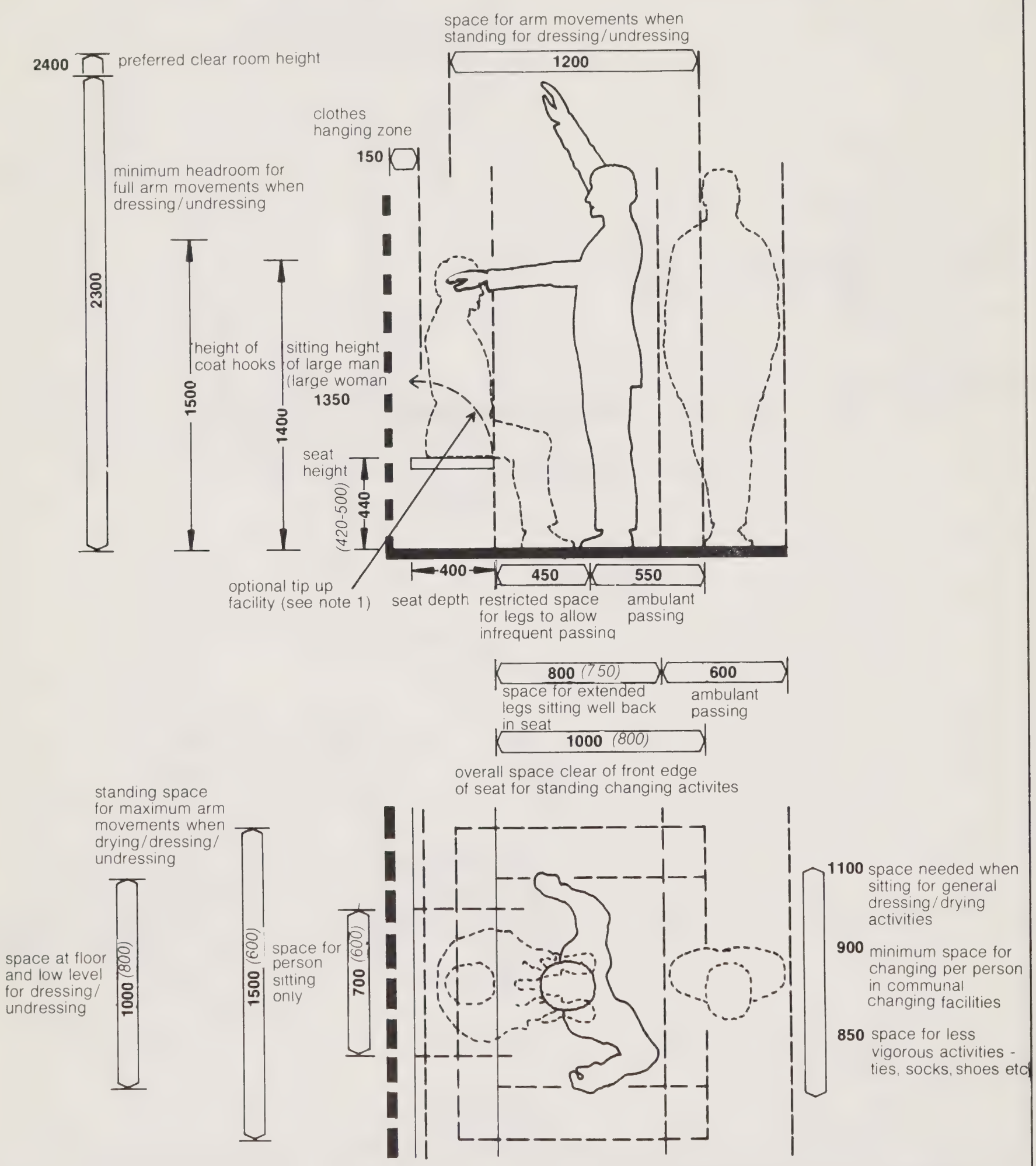
Activities
Dressing and undressing (from outdoor clothes & uniform). Temporary storage of clothes during changing (before transferring to a locker).
Sitting accommodation to allow easier changing and waiting for others.

DHSS **Ergonomic data bank**·
Component-user data sheet not to scale

Coat Hook & Seat (changing)

3F1

Users
staff



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes

1. A slight saving in overall space required can be achieved with the use of tip-up seating. The alternative is to use a very narrow seat, and/or penetrate the clothes hanging zone which is not satisfactory ergonomically.

Activities:
Storage. Placing or removing items

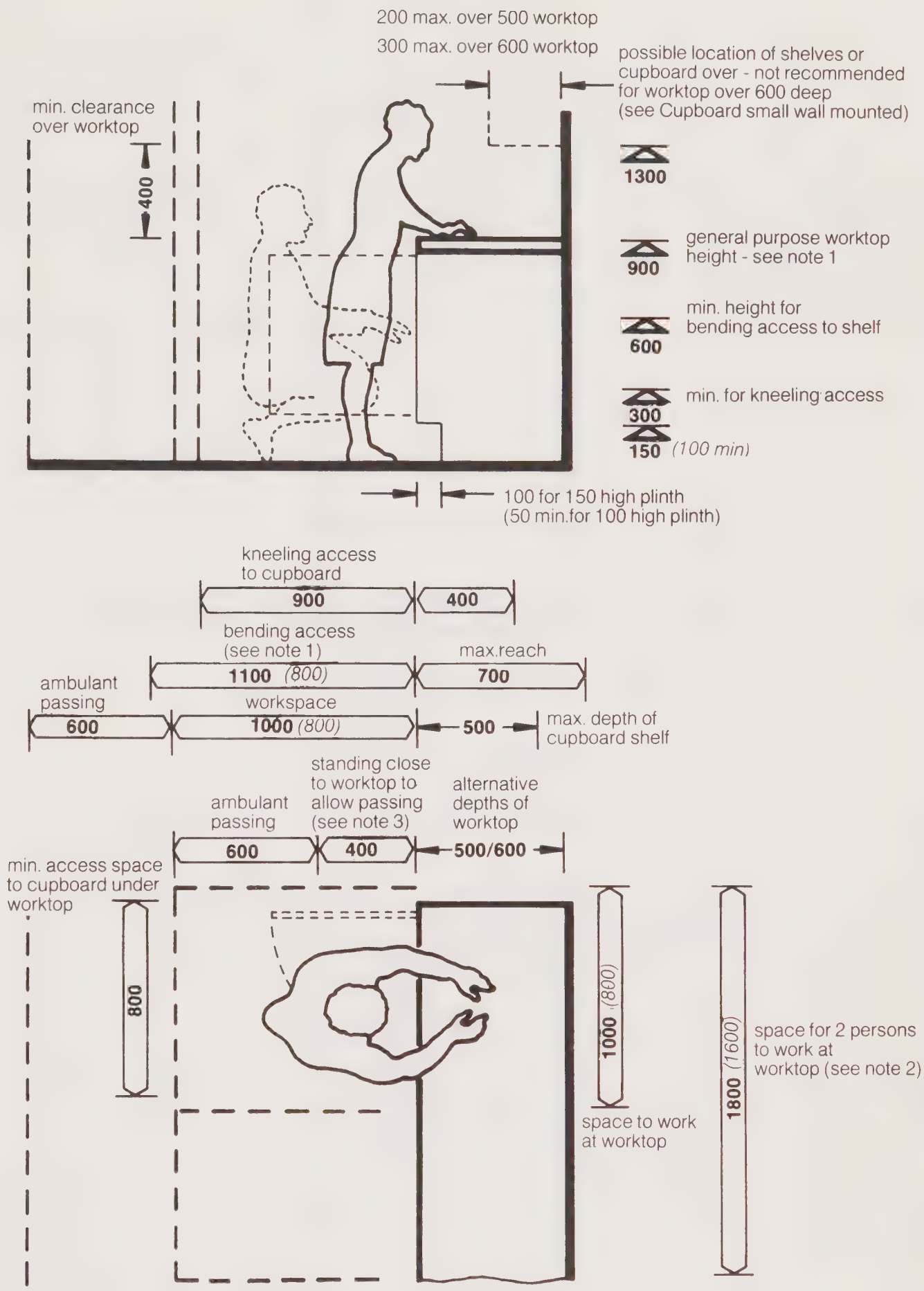
DHSS **Ergonomic data bank**
Component user data sheet, not to scale

Cupboard

3F5

Low level - side hung/sliding doors

Users:
Fully capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Worktop heights - should be suited to both the stature (elbow height) of the user and the nature of the work undertaken. Heavy work generally requires a lower worktop than light or delicate work where elbow support may be beneficial. The range shown is suitable for both male and female users; 850 heavy manual work; 900 light manual work; 950-1000 delicate work. Individual special task may require specific recommendations - see also Worktop/Bench
2. Worktop length requirements must be related to actual tasks undertaken and size of items for which associated holding space is required. Most light manual tasks will require a length of worktop of 600 plus an additional holding space. The minimum holding recommendation of 200 may be inadequate for some tasks.
3. Requires that work must stop when a person is passing
4. The space required for bending access should be provided only where frequent access is required to a second shelf ie. at 600 minimum above floor level,.

Activities:
Storage. Placing or removing small items

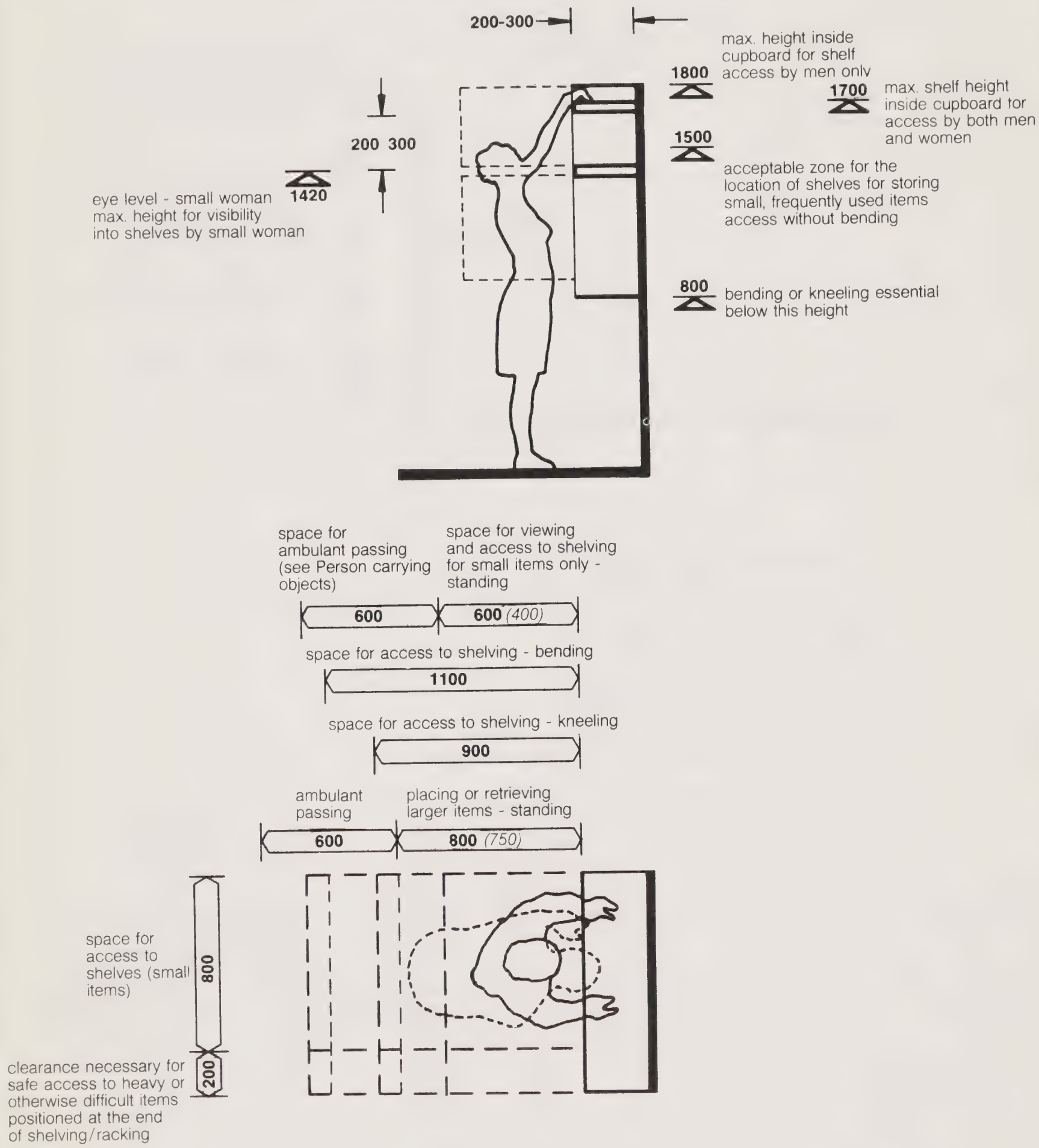
DHSS **Ergonomic data bank**
Component user data sheet, not to scale

Cupboard

3F4

Small, wall mounted sliding or side hung door with no obstruction under.

Users:
Fully capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Shelves should preferably be adjustable in height. The degree of adjustability should be the maximum which is practical and possible (suggested range 25-50mm depending upon use).

2. Shelf heights and dimensions must be related to the size and weight of the items stored also the frequency which they need to be accessed. Frequently used objects should be stored as near worktop height as possible and preferably not above eye level and not below 800mm above floor level.

3. Maximum heights refer to lightweight and easily handled items infrequently accessed.

4. The intershelf interval should preferably be 200-300mm and not less than shelf depth. The minimum for reasonable access is 150-250 where the shelf depth is smaller than actual cupboard depth.

Activities:
Storage. Placing or removing small items

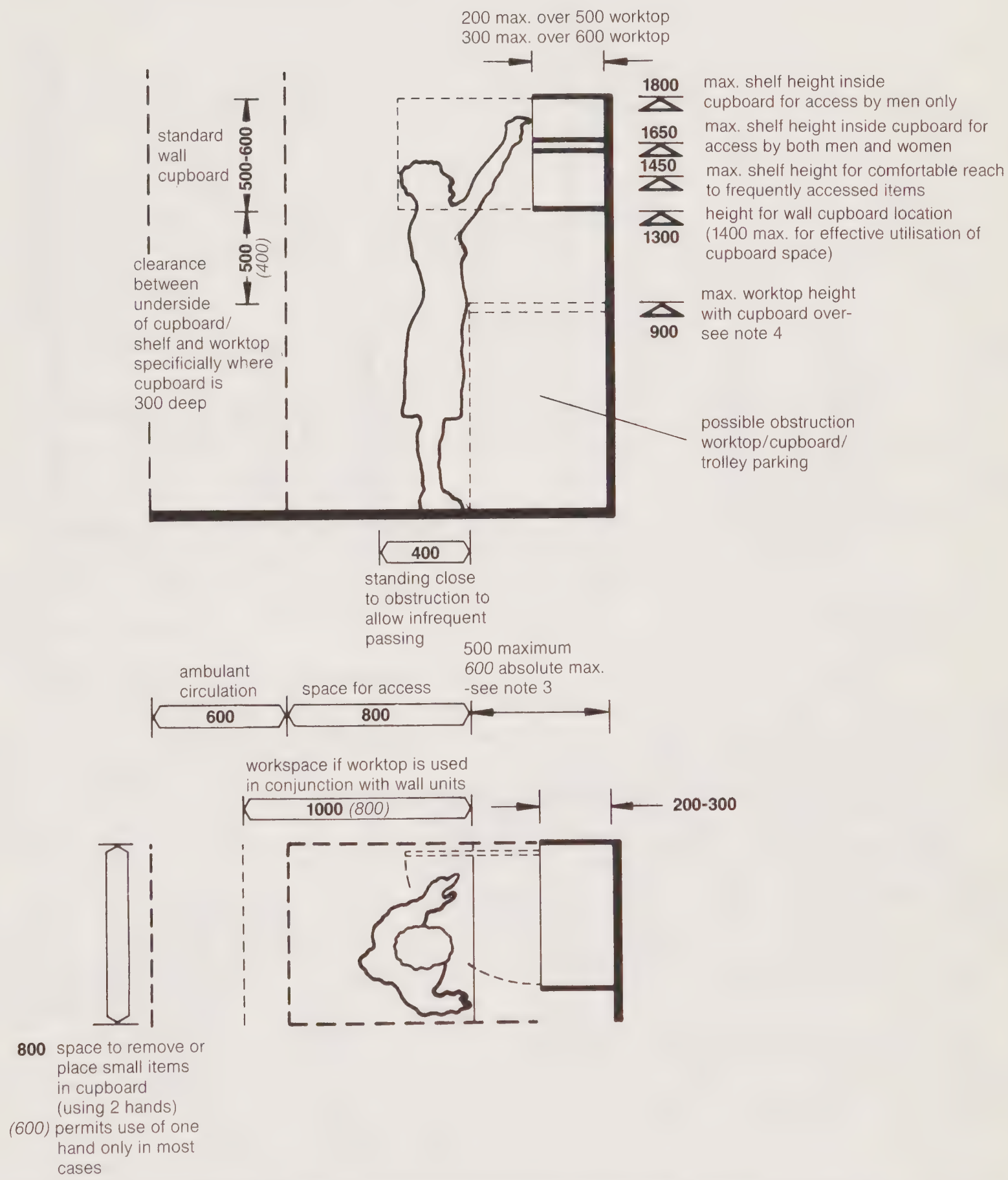
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

3F3

Cupboard

Small, wall mounted sliding or side hung door with obstruction under

Users:
Fully capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Shelves should preferably be adjustable in height. The degree of adjustability should be the maximum which is practical and possible (suggested range 25-50mm depending upon use).

2. Shelf heights and dimensions should be related to the size and weight of the items stored, also the frequency which they need to be accessed. Frequently used objects should be stored as near worktop height as possible and preferably not above eye level and not below 80mm above floor level.

3. Maximum heights refer to lightweight and easily handled items infrequently accessed.

4. Where worktops or other obstruction exceed 500 recommendations refer to grasping height to front edge of 300 deep shelf or cupboard only. Cleaning and reaching into shelves for small items is difficult.

5. Higher worktops require that cupboards be fixed higher to retain a viable workspace under thus reducing the effective utilization of the cupboard.

6. The intershelf interval should preferably be 200-300mm and not less than shelf depth. The minimum for reasonable access is 150-250 where the shelf depth is smaller than actual cupboard depth.

Activities:
Access to cupboards - including opening/closing doors and placing/retrieving items

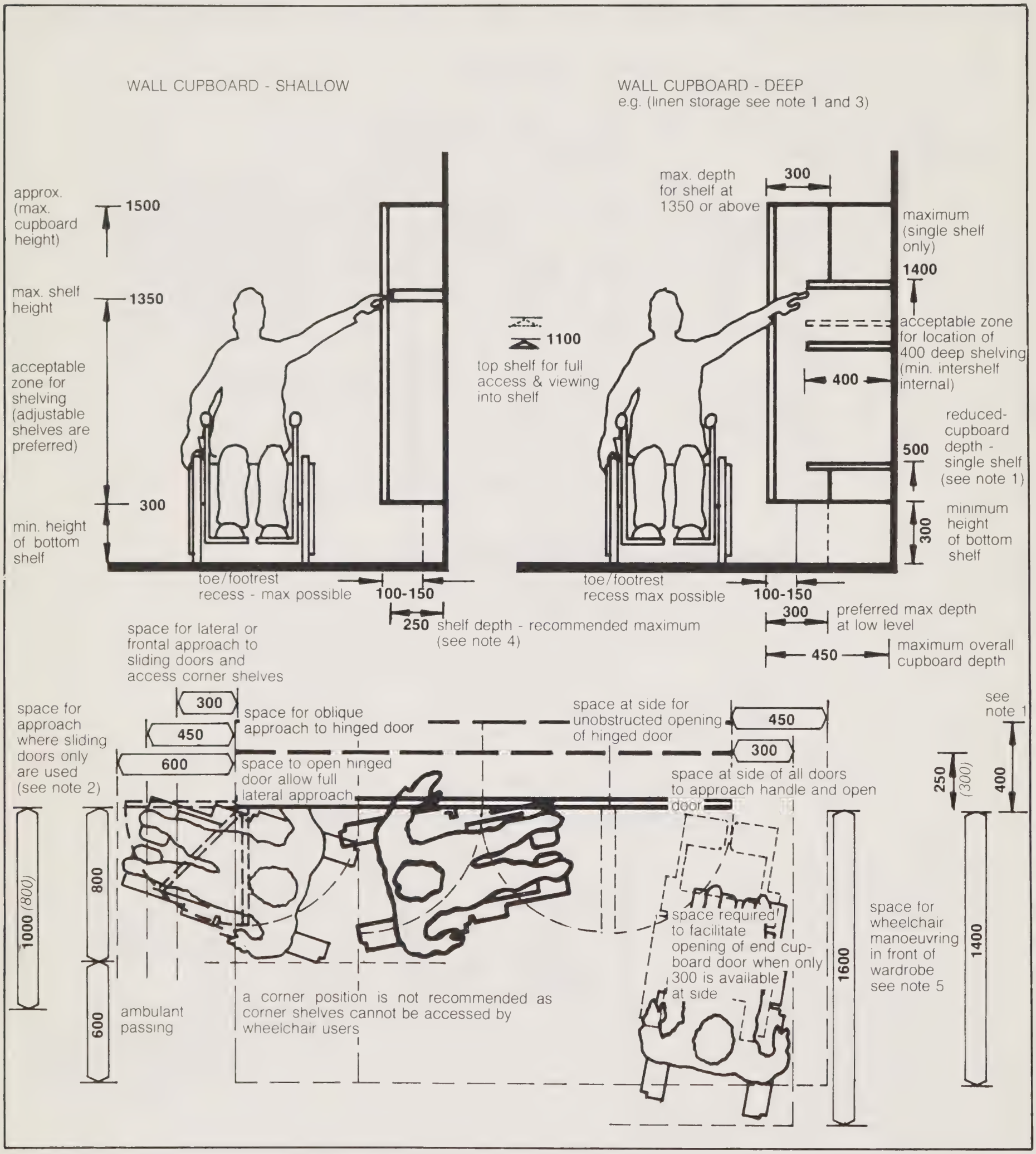
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Cupboards

3F2

wall mounted shallow/deep

Users:
wheelchair users



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes:

1. Shallow cupboards and shelves are preferred. Reaching to the back of deep shelves at high and low levels is extremely difficult and potentially dangerous for the chairbound disabled. Deep cupboards should therefore only be provided for specific items where deeper shelves are essential eg for linen storage.

2. Where space in front of sliding doors is only 1000 *(800)* full manoeuvring space must be conveniently available nearby.

3. Slatted shelves should run at right angles to the cupboard door to ease movement of stored linen.

4. A 100mm deep cushion, which is frequently used by the wheelchair disabled, can be assumed to increase eye levels by 70mm. This provides an effective seat height of 550 max. Wheelchair seat heights, even for heavily upholstered geriatric chairs, are unlikely to exceed 550.

5. This dimension assumes that feet and footrest of wheelchair will pass under cupboard overhang. Where no overhang is available or is inadequate this dimension must be increased to 1500 minimum.

Activities:
Doctor interviewing patient with escort.
Space requirements around desk for sitting.
circulation and parking of equipment

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

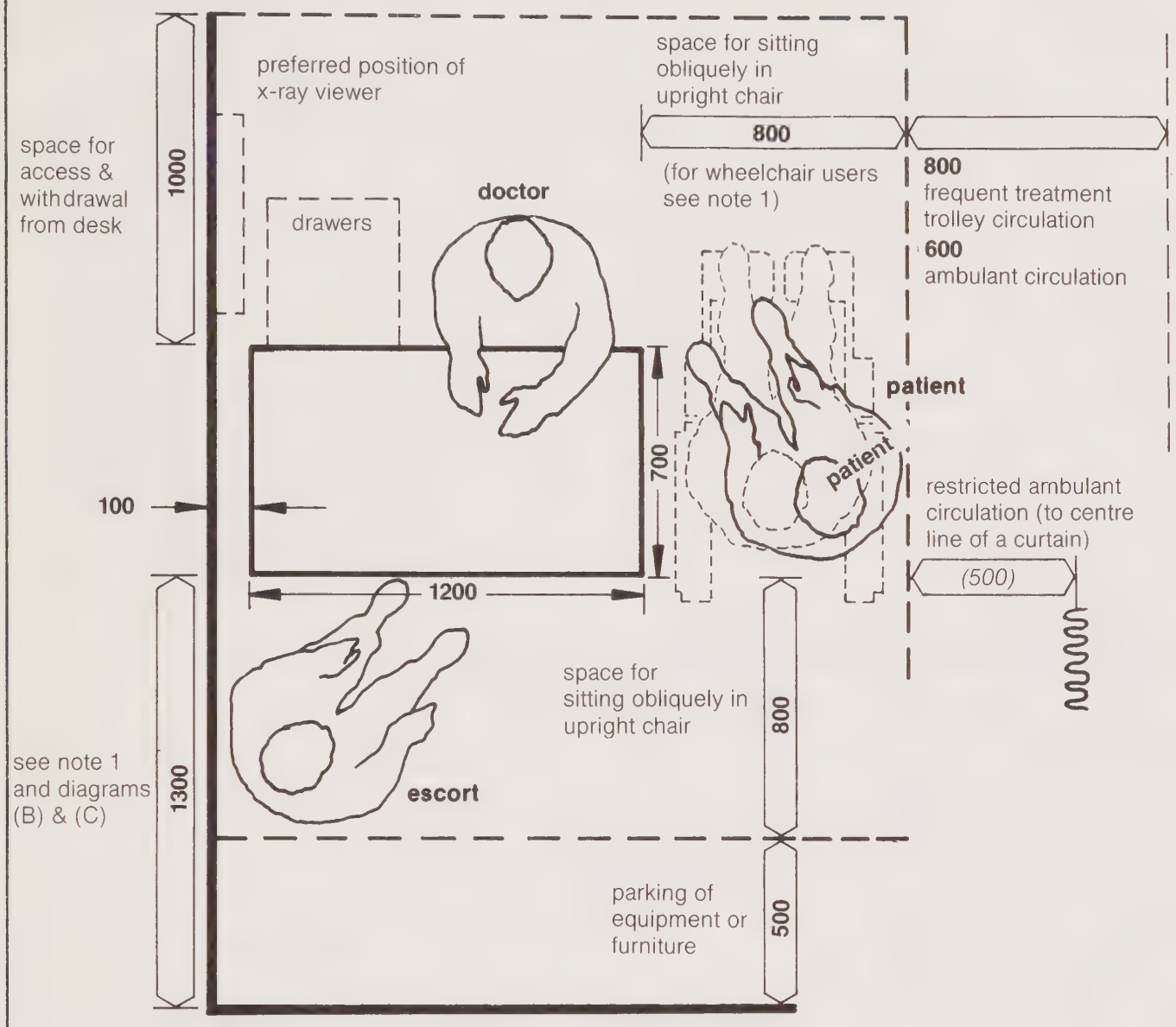
3E1

Desk

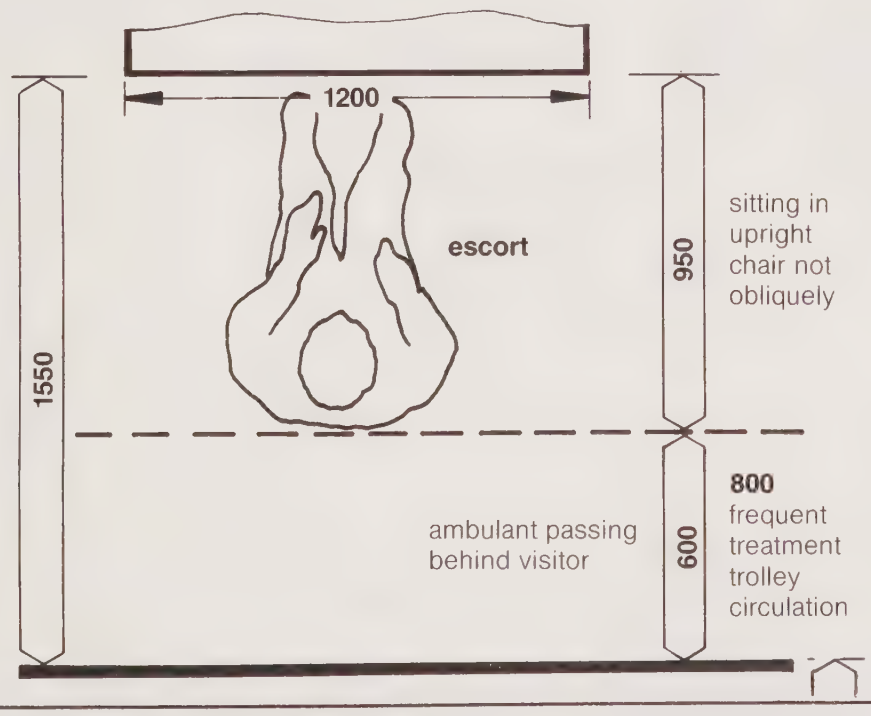
Doctor's with drawer on one side

Users:
Doctor, patient (ambulant or in wheelchair) with escort

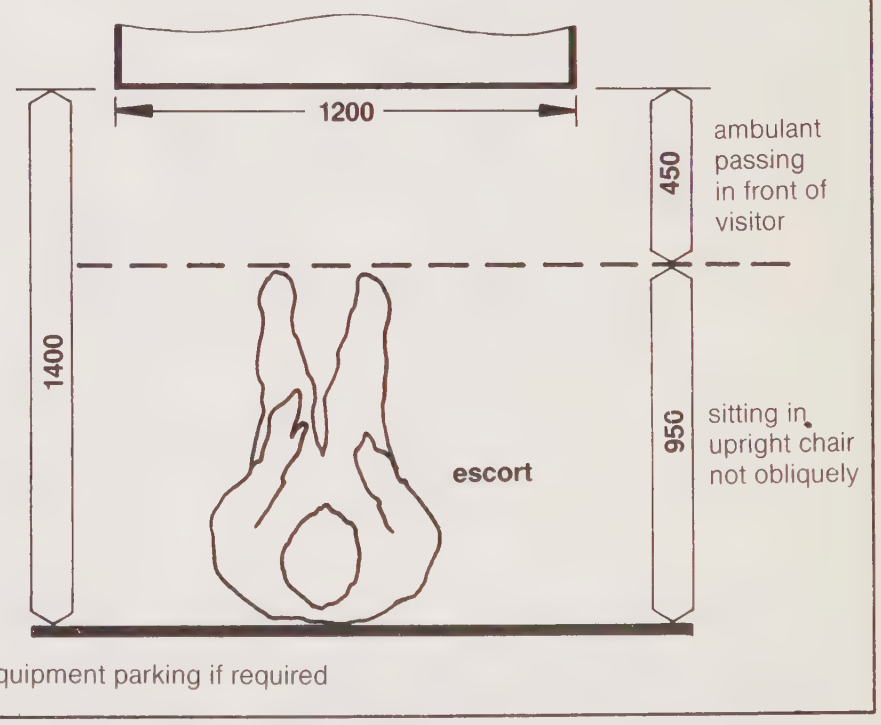
(A) SPACE REQUIREMENTS AROUND DOCTOR'S DESK



(B) SPACE IN FRONT OF DESK TO ALLOW PASSING BEHIND A SEATED VISITOR (eg to gain access to an adjoining examination or other room)



(C) SPACE IN FRONT OF DESK TO ALLOW PASSING IN FRONT OF A SEATED VISITOR (eg to gain access to an adjoining examination or other room)



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Access by independent or assisted wheelchair users should also be considered. Space requirements for manoeuvring depend on door positions and room layout. A clear turning space of 1500 diameter is desirable.

Activities:
Writing, administration, answering telephone etc.

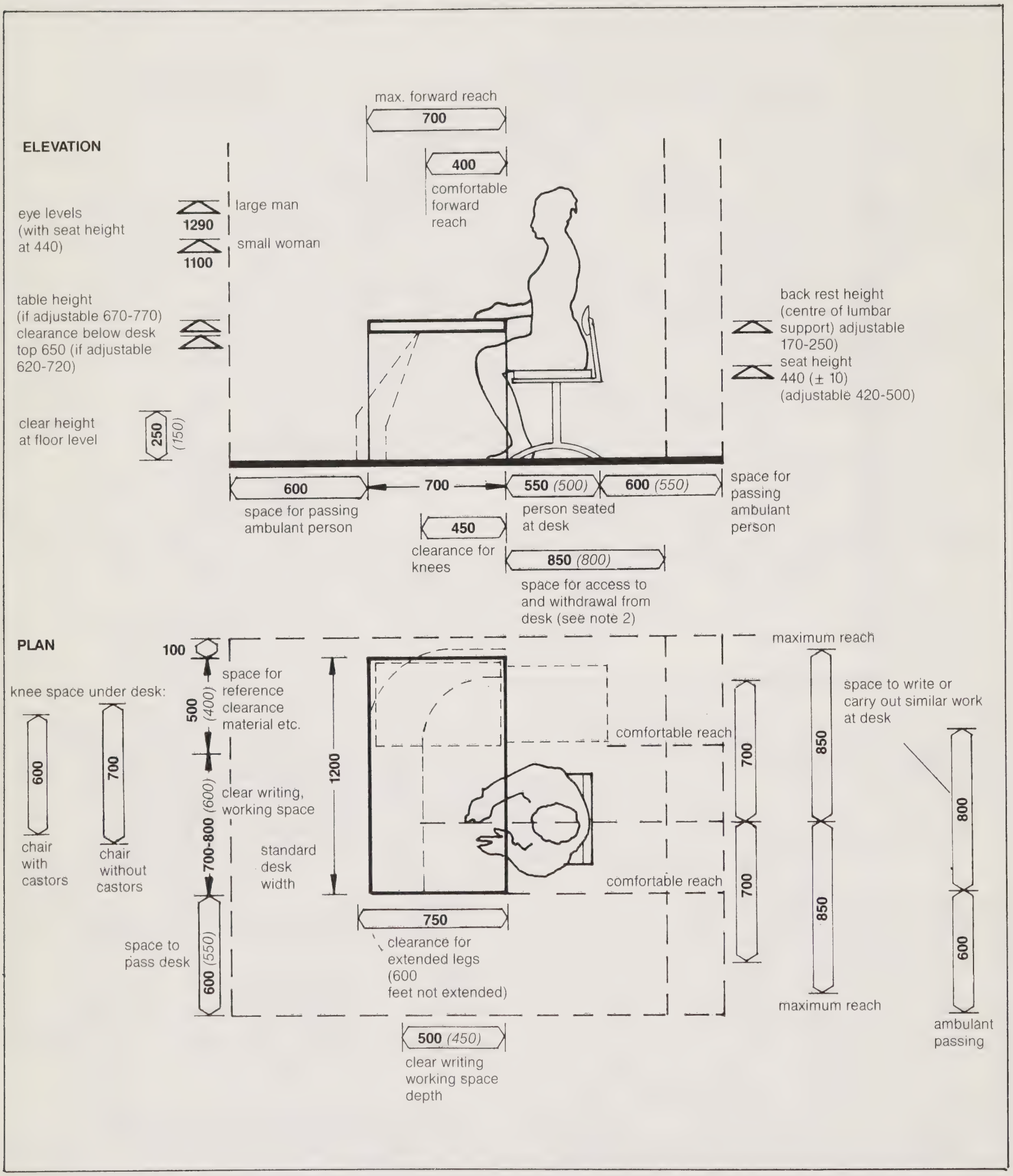
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

3E2

Desk single pedestal

1200 x 700
chair without arms

Users:
staff



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. See also BS 5940: Part 1: 1980.

2. 900-1000 will be required for upholstered and heavily upholstered chairs respectively.

3. All papers and work implements frequently accessed e.g. telephones, should be placed within comfortable reach.

4. Items used less often should be capable of being grouped/placed within the limit for maximum reach.

Activities:
Movements through single doors, including location and minimum clearance for sale use by ambulant personnel also some wheelchair traffic (see note 1).

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

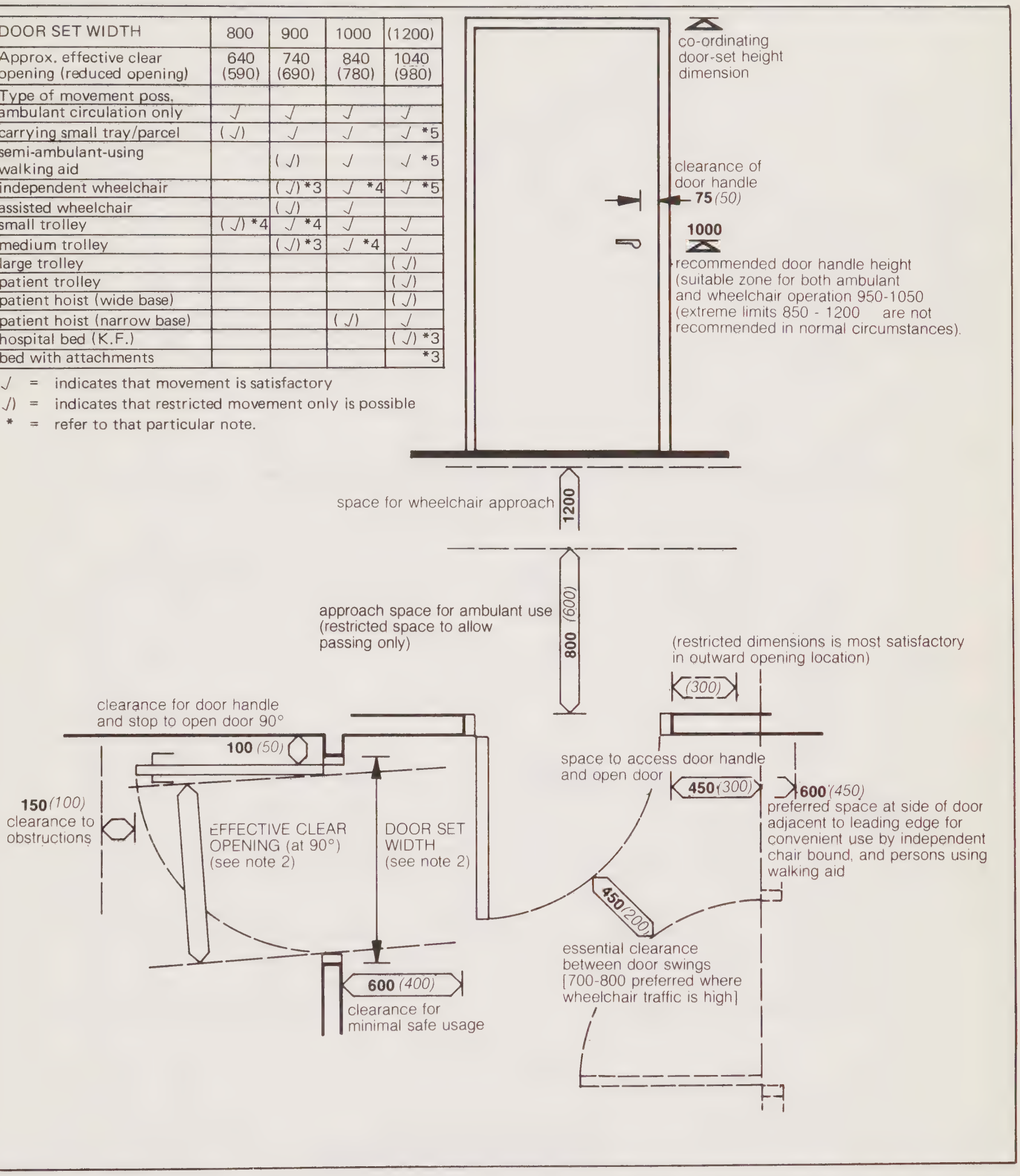
Doors

4A1

Single leaf, flush
800, 900, 1000 (1200), doorsets

DOOR SET WIDTH	800	900	1000	(1200)
Approx. effective clear opening (reduced opening)	640 (590)	740 (690)	840 (780)	1040 (980)
Type of movement poss.				
ambulant circulation only	✓	✓	✓	✓
carrying small tray/parcel	(✓)	✓	✓	✓ *5
semi-ambulant-using walking aid		(✓)	✓	✓ *5
independent wheelchair		(✓) *3	✓ *4	✓ *5
assisted wheelchair		(✓)	✓	
small trolley	(✓) *4	✓ *4	✓	✓
medium trolley		(✓) *3	✓ *4	✓
large trolley				(✓)
patient trolley				(✓)
patient hoist (wide base)				(✓)
patient hoist (narrow base)			(✓)	✓
hospital bed (K.F.)				(✓) *3
bed with attachments				*3

✓ = indicates that movement is satisfactory
(✓) = indicates that restricted movement only is possible
* = refer to that particular note.



1350 *(1300)*

Preferred minimum — *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Door width limits use for certain categories of movement (see table); similarly movement may be impeded by inadequate space to turn into or out of door opening. Lobby requirements should therefore also be checked by reference to the appropriate component data sheets.
2. The above table showing clear opening widths and suitability for various categories of movement. Taller items of equipment (ie over 900 high where door handle is at 1000), or items carried at door handle height, will be afforded a reduced clear opening width where door swing is restricted to 90°, and especially where this is combined with difficult lobby conditions. Reduced widths are shown in brackets.
3. Movement is extremely restricted and use cannot be recommended for normal working situations. Any attachments must be removed before even restricted movement is possible. Damage to door frames and equipment is likely to occur, even when reasonable care is exercised
4. Some limitations on speed of movement may be experienced.
5. Some difficulty in opening and closing heavier doors may be experienced
6. Approach clearances are recommended whether or not doors contain vision panels, but are especially critical where approach to doors does not afford a view of concurrent or adjacent traffic.

Activities:
Door handles and provision of vision panels

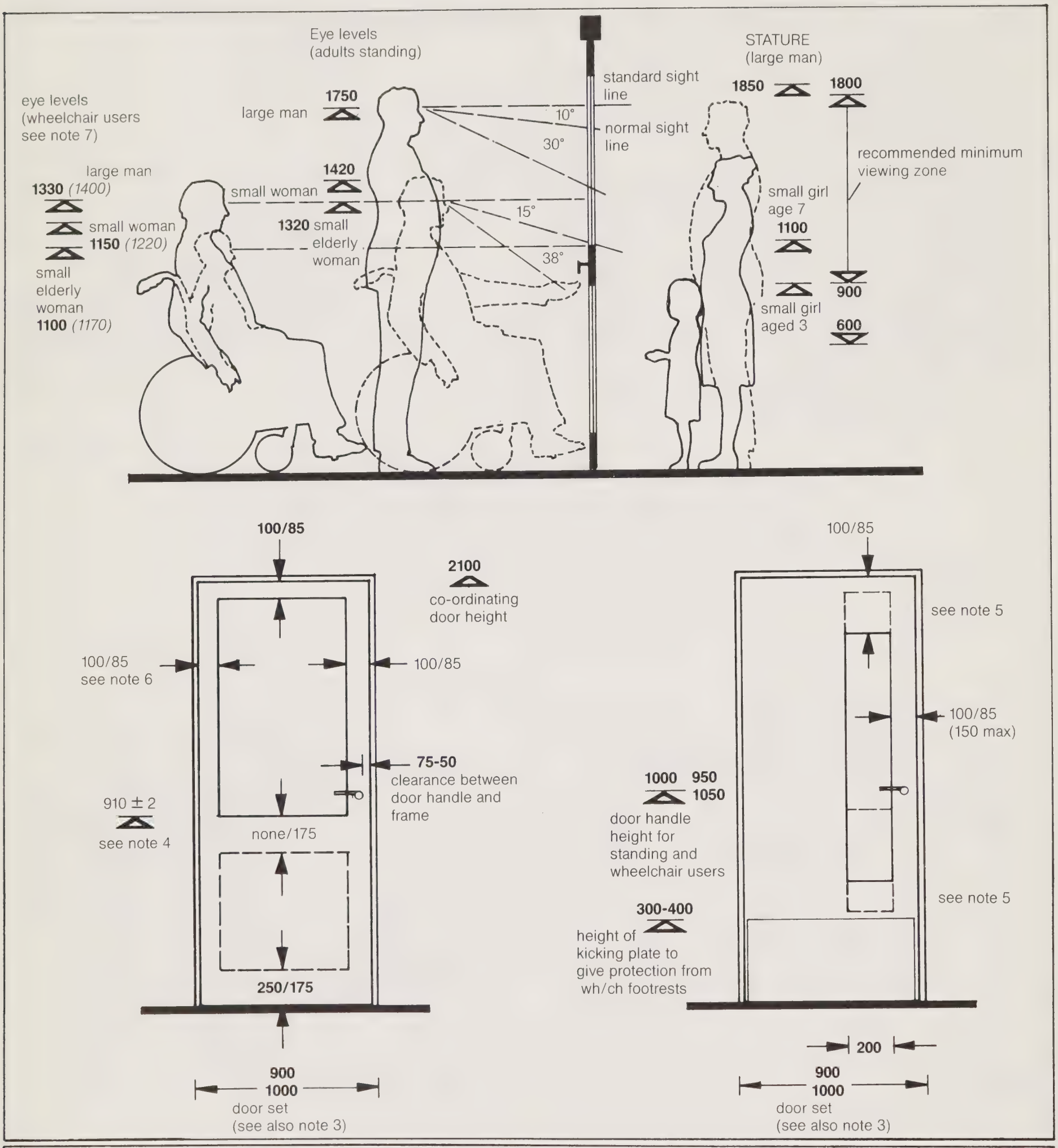
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

4A2

Doors

single leaf and double leaf
(see note 3)

Users:
wheelchair users and ambulant users



Notes

1. The physical dimensions of the doors shown on this data sheet are minimum requirements in accordance with BS 4787: Part 1: 1980 Internal and external wood door sets, door leaves and frames. Part 1: Specification for dimensional requirements.

2. Special consideration should be given to the safety of door glazing and positioning of vision panels where children are involved. The provision of low level vision panels is particularly important and these should be resistant to breakage.

3. The following are co-ordinating dimensions for doorset widths. (S) = single leaf. (D) = double leaf.
(a) 600(S), 700(S), 800(S) - none of these are recommended for use in health buildings, especially where wheelchair or other disabled, are involved.
(b) 900(S) and 1000(S) are preferred minimal for area used by disabled persons.
(c) 1500(D), 1800(D), 2100(D) - all are suitable for disabled usage, but 1500 door set must be of 1 + ½ door variety.

4. This is a BS co-ordinating requirement which ensures that the mid-rail of the door aligns with the line of the cill of a standard 1200 high window, having a lintel common with that of the door frame.

5. The minimum glazed areas shown may be exceeded in any direction ie there is functional maximum glazed areas, BUT glazed doors must be perceptible to partially sighted persons.

6. Door member sizes BS 4787 does not recommend standard sizes for glazed openings, but specified minimum sizes of timber members for each type of door.

7. ( ) bracketed figures refer to eye levels of users using 100 deep cushion on wheelchair seat.

Activities:
Viewing, placing and retrieving files

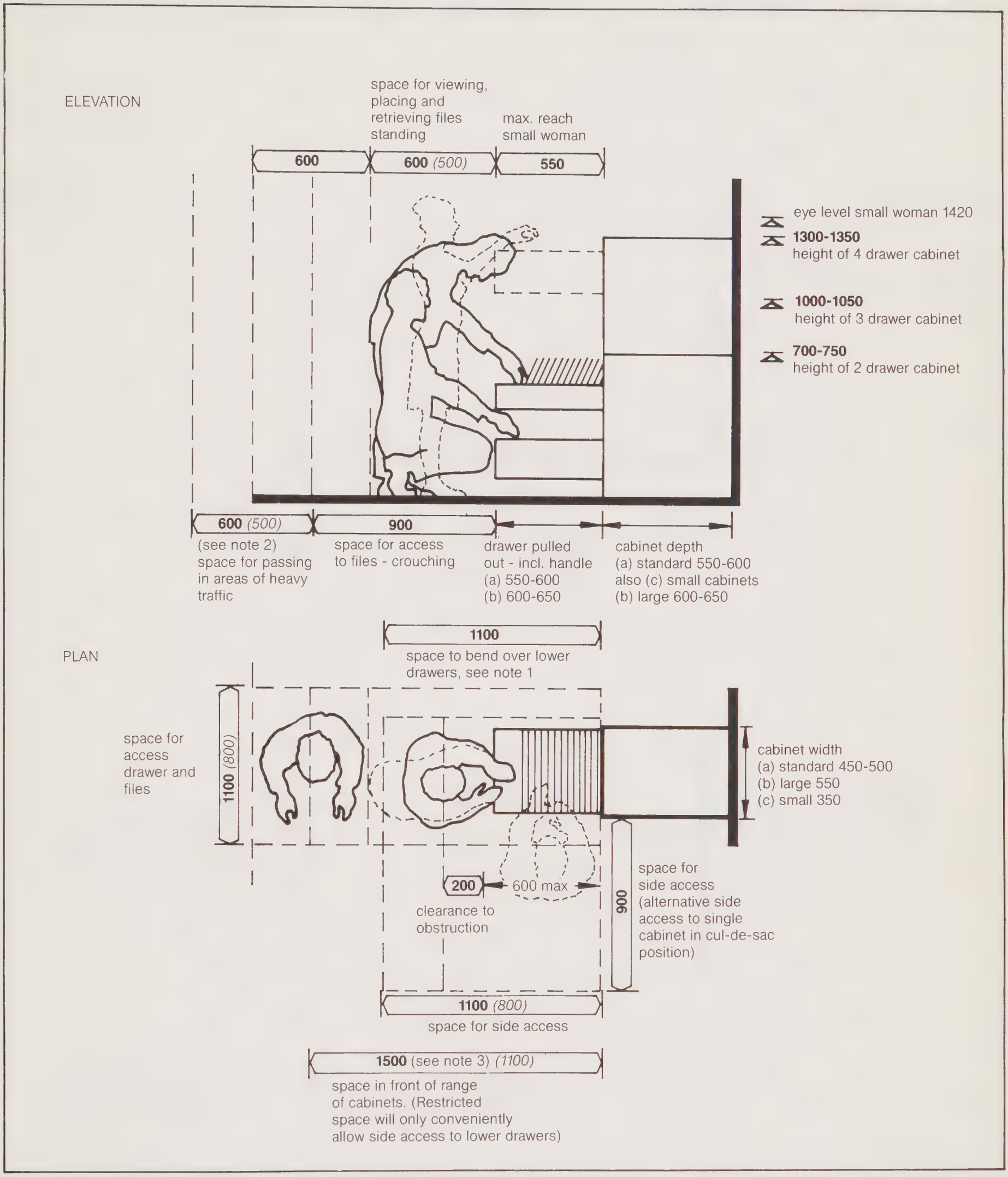
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

3E3

Filing Cabinet

2, 3 or 4 drawer with suspended files

Users:
staff (fully capable) and occasionally wheelchair disabled (see note 3)



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Additional space for bending access to lower drawers is not required as this is satisfactorily accommodated over the space for pull out drawer. Space in front of cabinet should however be not less than 1100 to allow bending access to drawers.

2. This would apply to major circulation routes in large open planned offices.

3. Wheelchair users can readily access the second and third drawers. The top drawer in a 4 drawer cabinet is not accessible to a person in a wheelchair. Files in the bottom drawer of a cabinet are accessible, but some difficulty may be experienced in opening this drawer unless the handle position is modified. A 1500 clear space in front of the cabinet is also desirable for wheelchair turning.

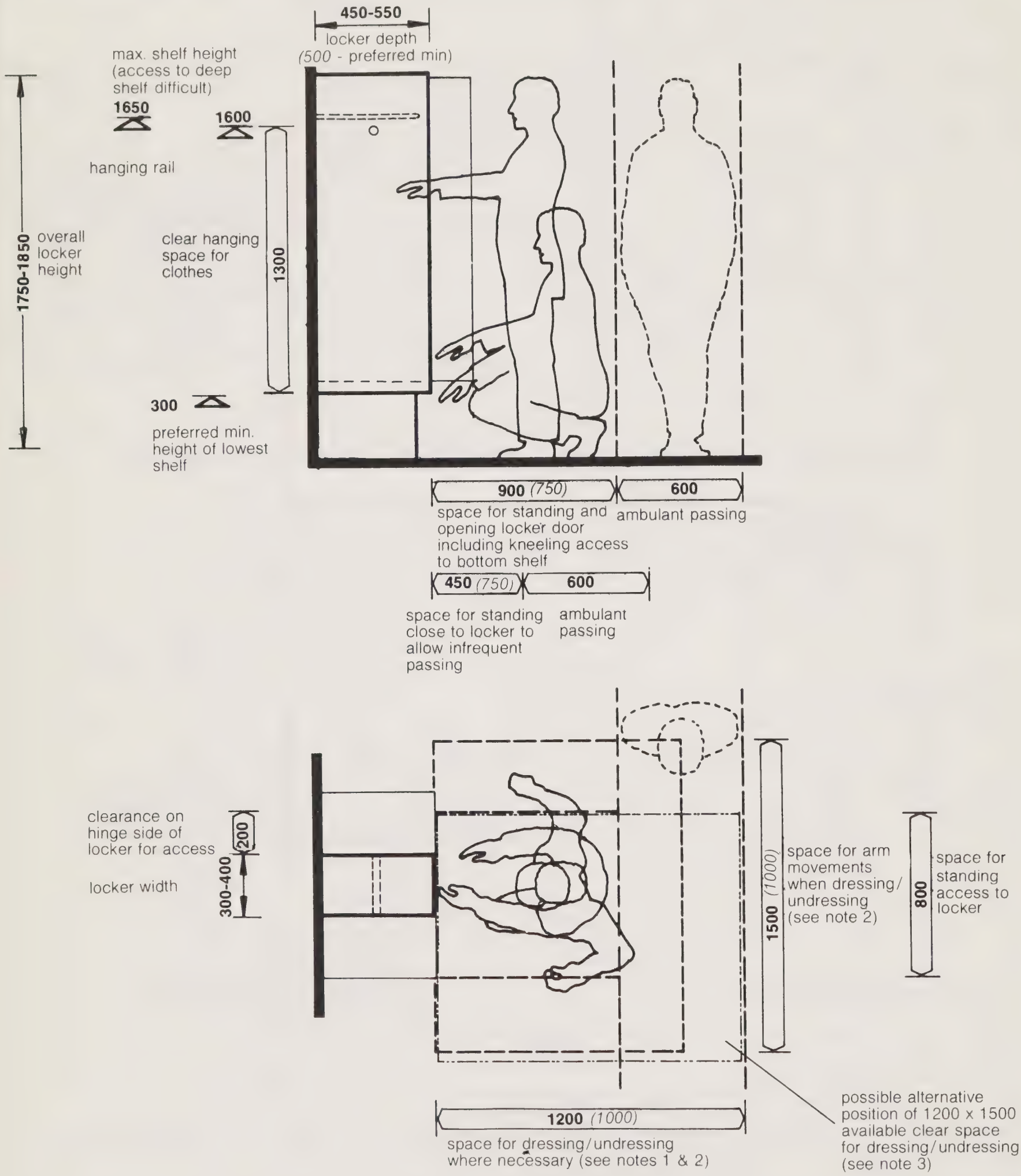
Activities
Storage of clothes and valuables.
Placing and retrieving items from locker

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Locker

3F7

Users
Staff



1350 *(1300)*

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes

1. Provision of space for changing may be (a) adjacent to lockers (recommended only for changing outer clothing) (b) as a separate provision see 'coat hook & seat' data sheet.

2. Peripheral requirements of changing space may be reduced below the level of arm movements (when standing) - approx 800 above floor level

3. Changing space will be shared with other locker users, and may be positioned as convenient for most users. The number of changing spaces required will depend upon the number of lockers and the frequency of concurrent use, and must therefore be decided at individual project level.

Activities
Storage of small items of luggage and valuables.
Placing and retrieving items from locker.

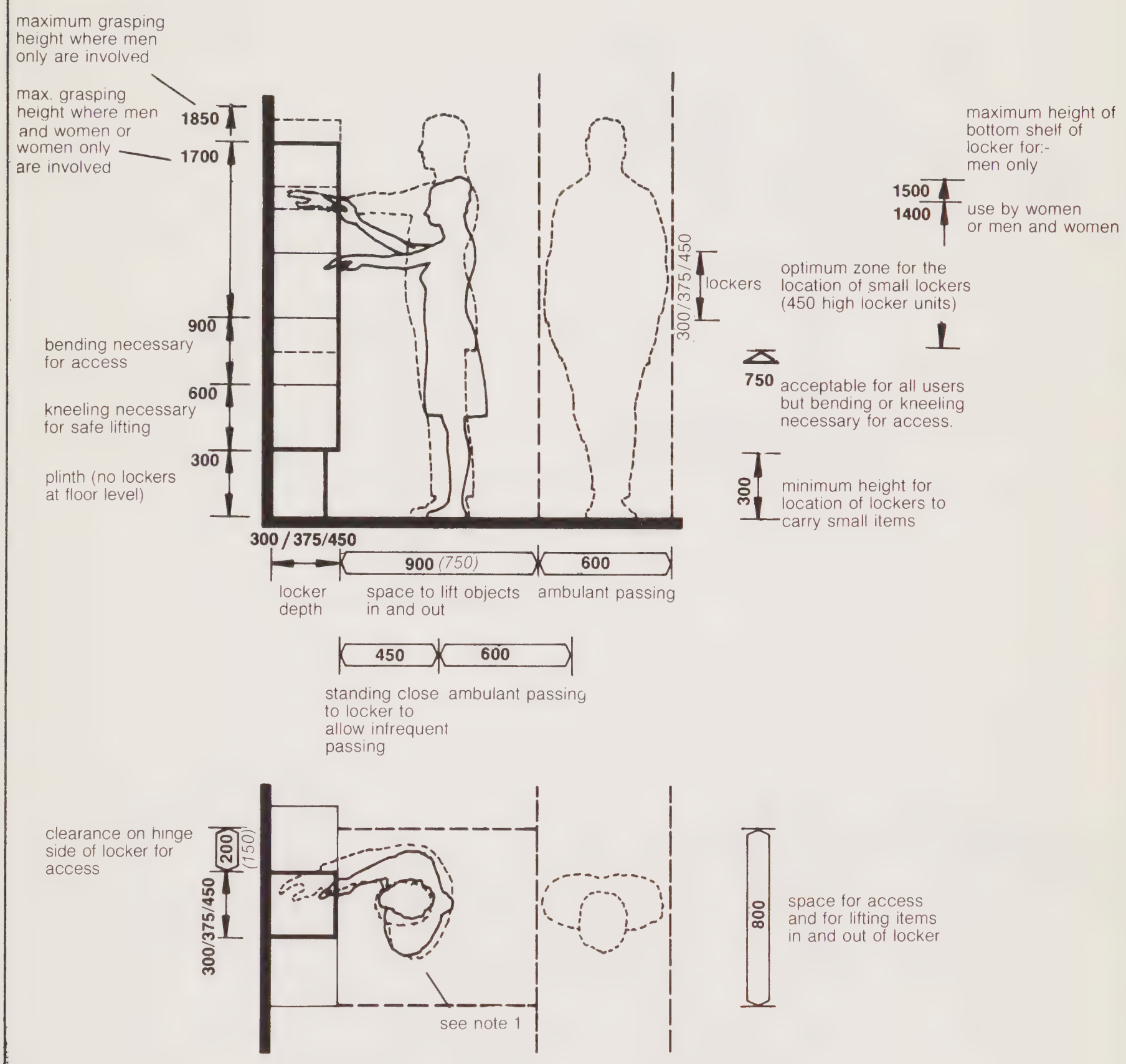
DHHS **Ergonomic data bank:**
Component-user data sheet, not to scale

Lockers

3F8

Small luggage

Users
Staff



1350 (1300)

Preferred minimum *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes:

1. An associated changing space may be required (1500 x 1200) see also coat hooks and seat data sheet

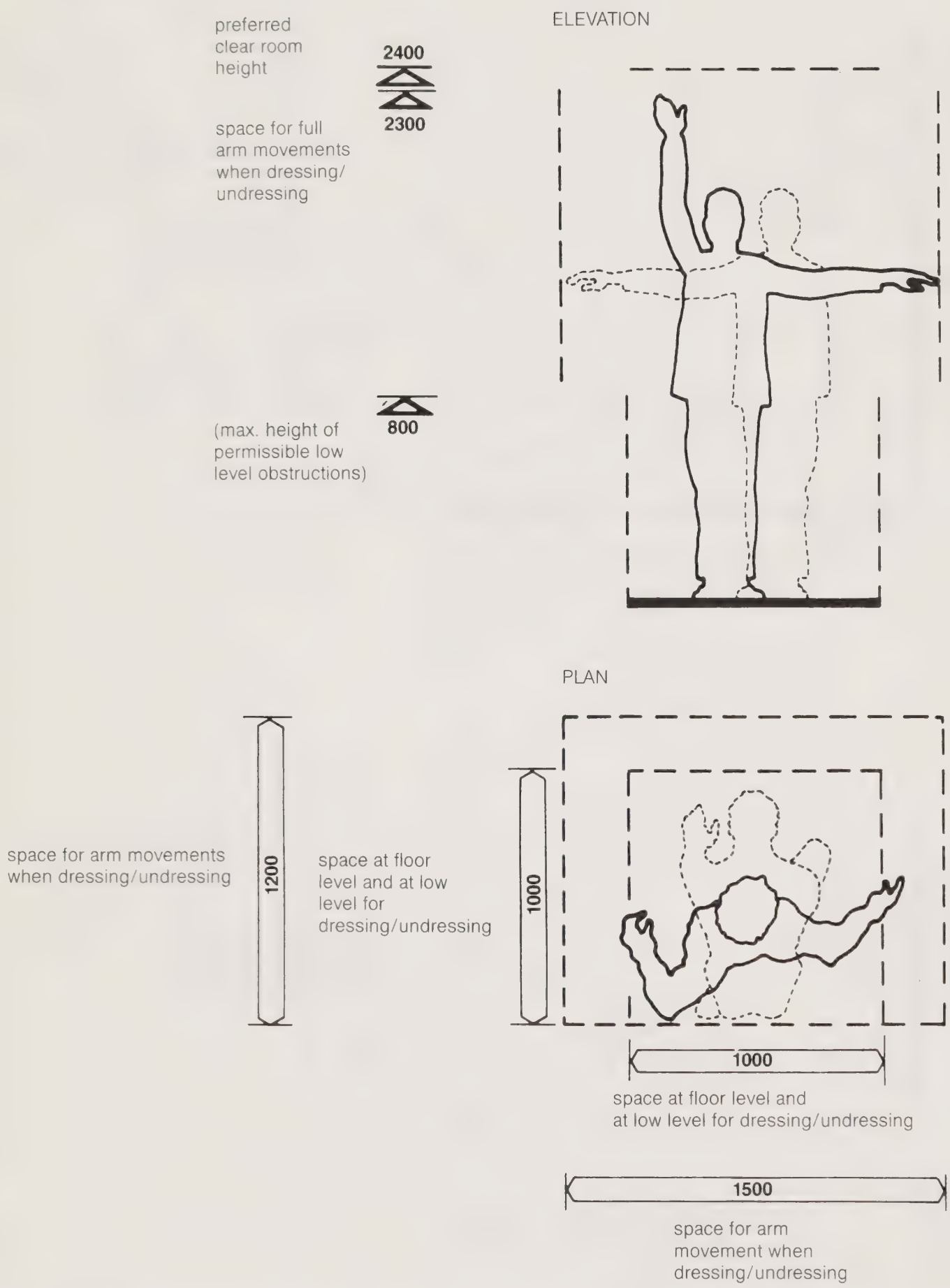
Activities:
Dressing/undressing

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale.

Person

1A6

Users:
Ambulant adult without assistance



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Activities
Disposal of waste, removal of full sacks, fitting new sacks

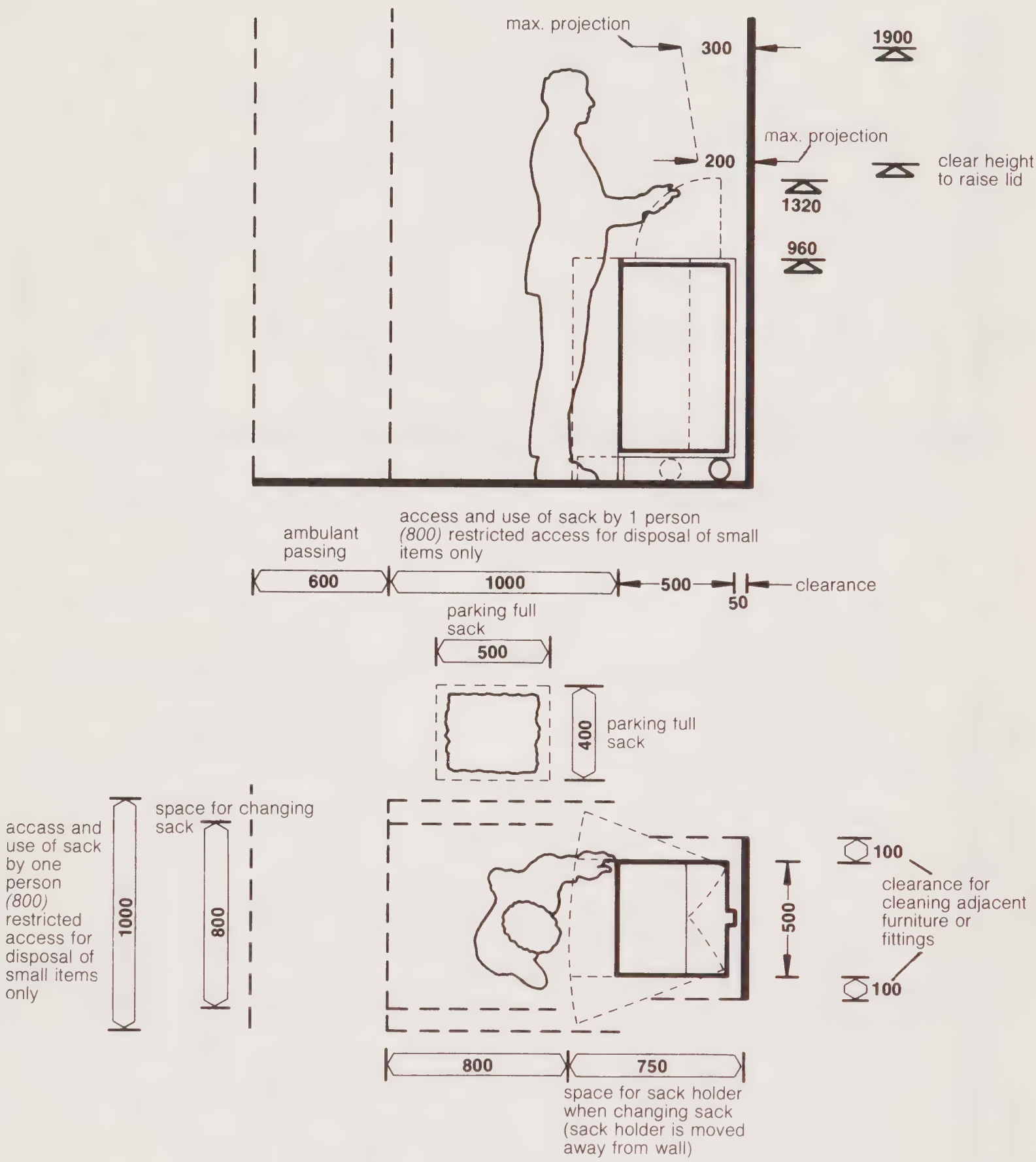
DHSS **Ergonomic data bank:**
Component-user data sheet not to scale

Sack Holder

8 G 7

large, mobile

Users:
ambulant personnel



1350

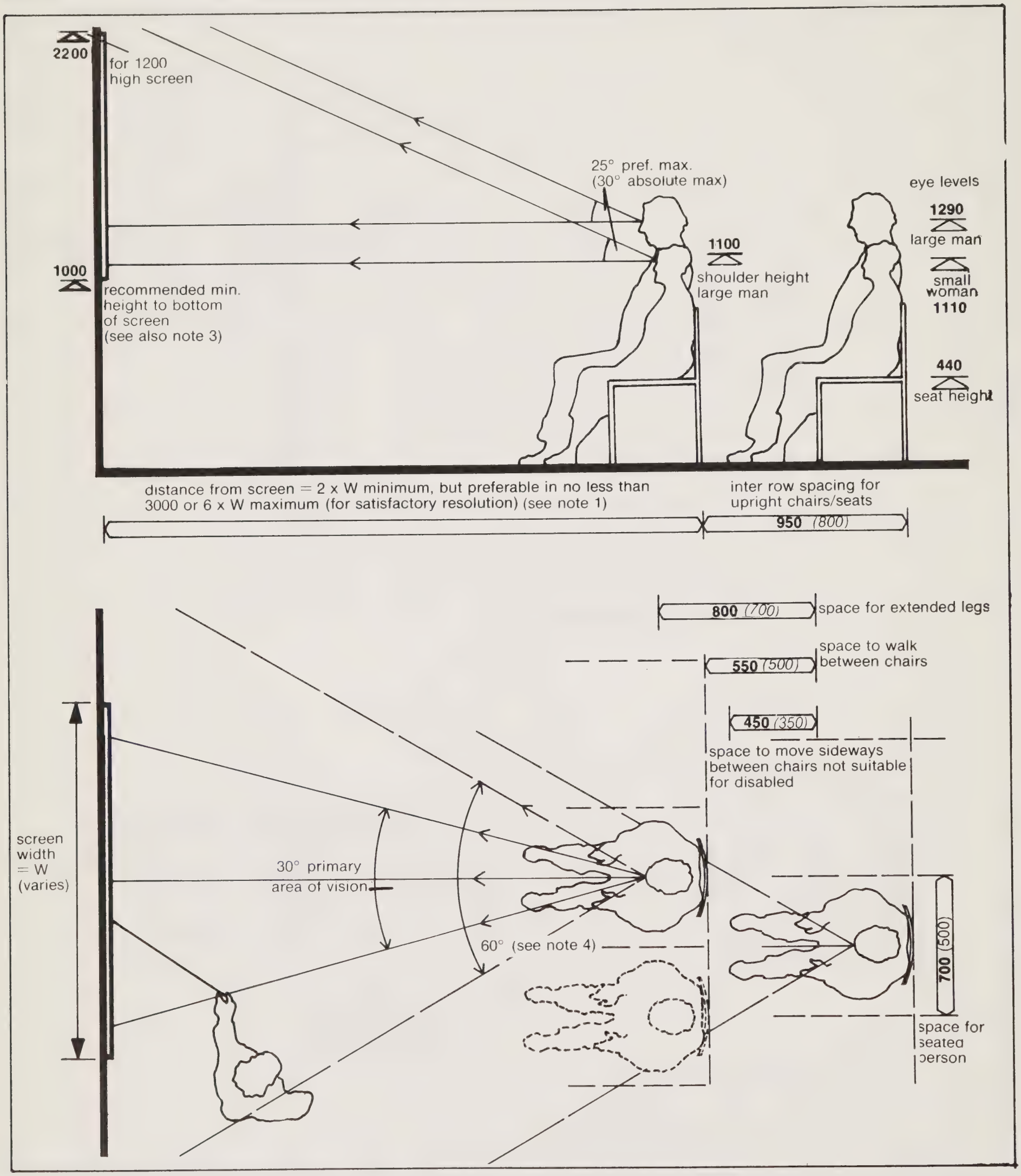
Activities:
Viewing e.g. seminar room

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Screen/Board

5A1

Users
Seated users



1350 *(1300)*

Preferred Minimum *Restricted minimum not recommended for general use: see exaplantory notes).*

Notes

1. Viewing of large (600mm/24") TV screen - min 2500. max. 6500, distances will be reduced for smaller screens.
2. Seats should be staggered if each person is to have as good a view of the screen as possible.
3. In large lecture rooms, height to bottom of screen should be higher (up to 1600).
4. 60° - limit of secondary perceptual interests (limit of colour discrimination) - max. screen width for satisfactory viewing).

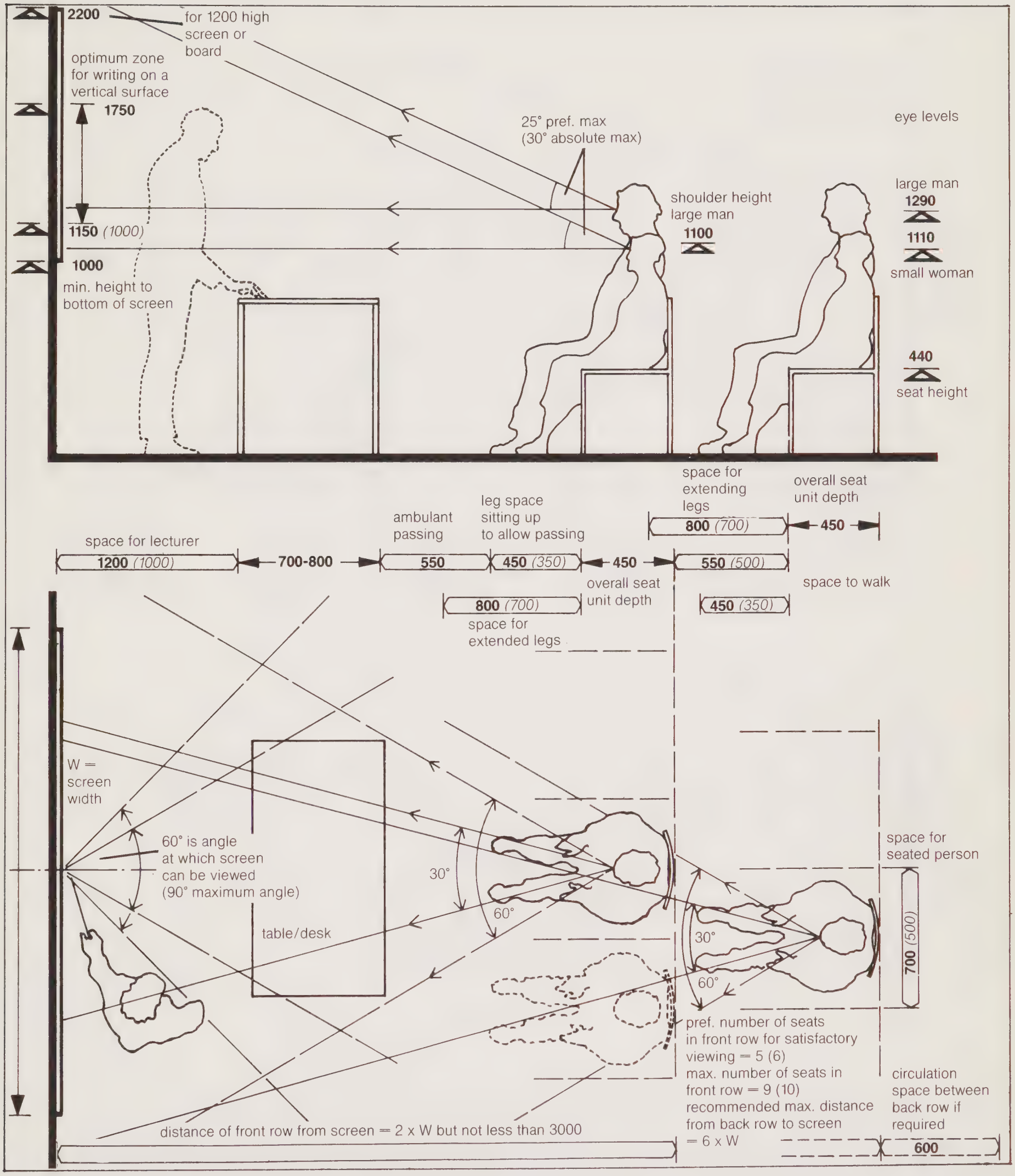
Activities:
Viewing and instructing using screen/board, e.g. in seminar room

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Screen/Board

5A2

Users:
Seated users



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Seats should be staggered if each person is to have as good a view of the screen as possible.

2. In large lecture rooms, height of bottom of screen should be higher (up to 1600).

3. A pointer will be required to draw attention to details which appear on the screen/board above 1750.

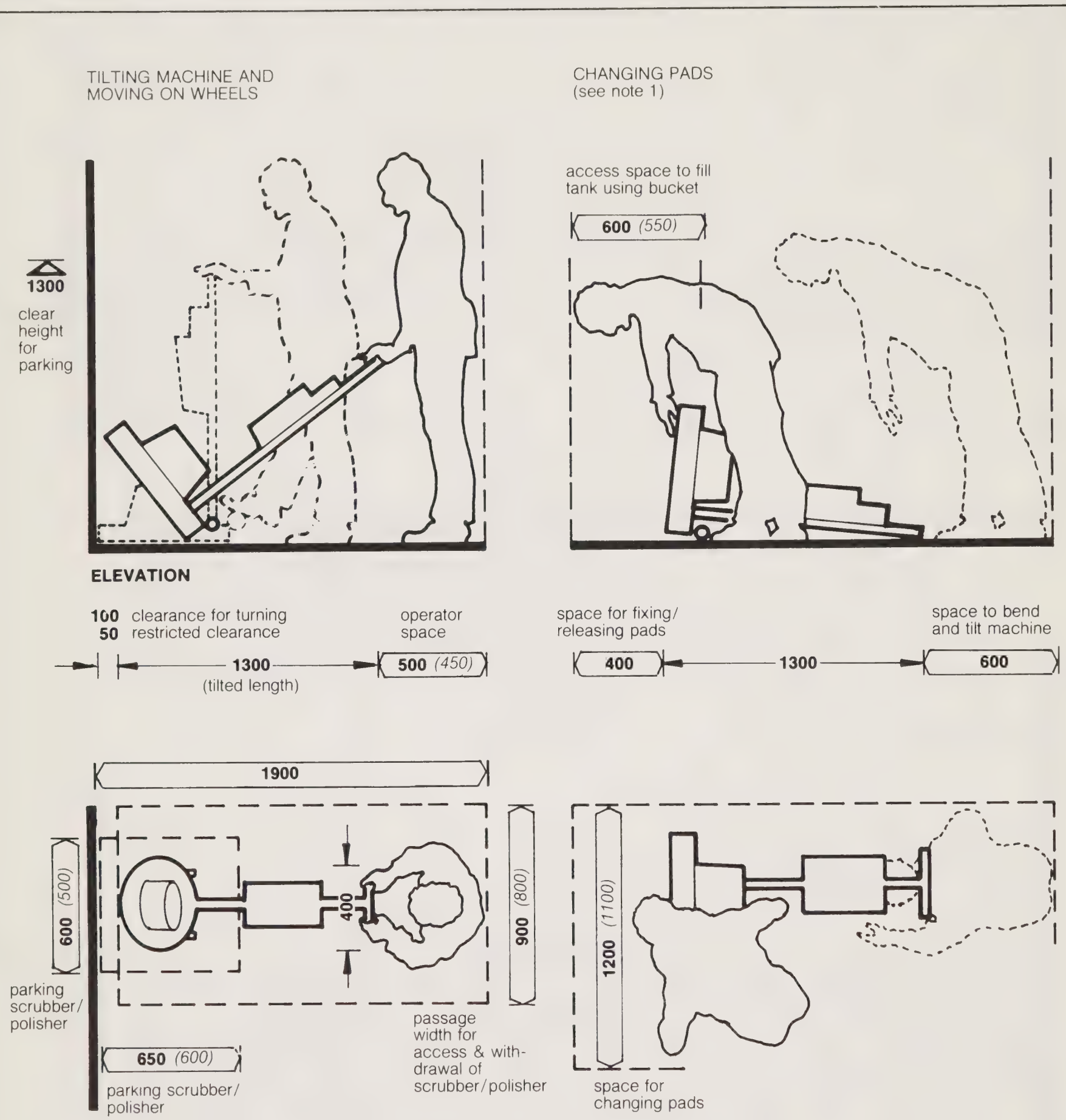
Activities
Parking, Filling tank, tilting machine onto wheels and manoeuvring

DHSS **Ergonomic data bank**
Component user data sheet, not to scale

Scrubber/ Polisher

8G2

Users
Domestic staff



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:

1. Shelves and/or racks should be provided for storage of brushes and pads, preferably positioned near the machine's normal parking position. 3 no 500 x 500 shelves at 1300, 1500, 1700 above floor level immediately over the parked machine is acceptable.

2. Scrubber/polisher parking — the machine is extremely heavy, and especially difficult to manoeuvre when not being operated (ie. moved on its small wheels). It can be tilted within a space of 1600, but a more space consuming posture is required to move or turn the appliance. Direct and unobstructed access to a parking position is therefore preferred.

Activities:
Storage. Placing or retrieving items

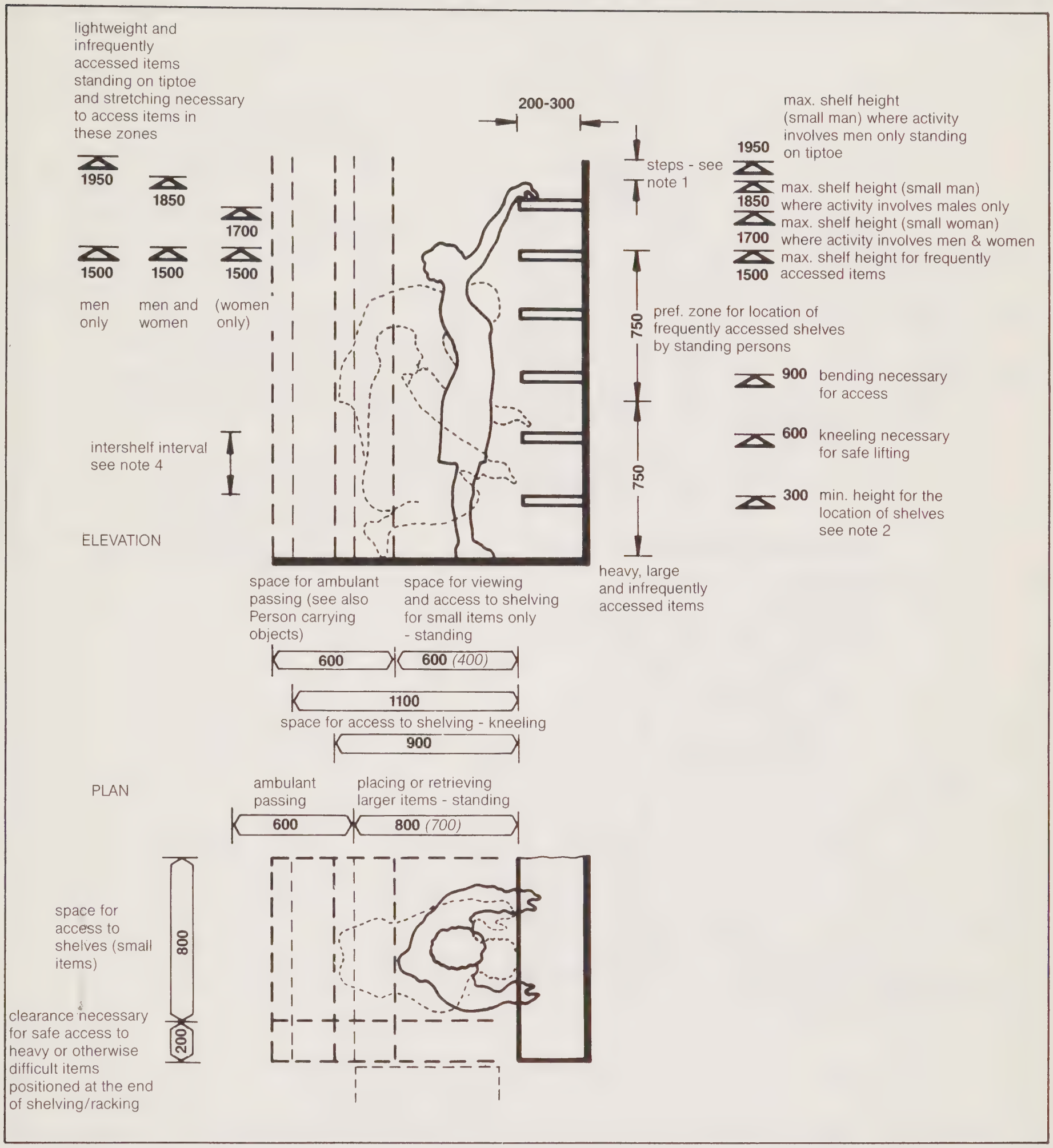
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

3F11

Shelving (racking)

200-300 deep

Users:
Fully capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Steps are required by an increasing number of users above 1700, and by most users above 1850. Steps are recommended for all users above 1950 (shelves at this height are NOT recommended for normal use - suitable for very long term storage only).

2. Also recommended minimum height for handles or lifting aids on larger items stored on shelves below 300, above floor level, or on the floor.

3. Shelf heights and dimensions must be related to the size and weight of items stored and also to the frequency with which they will be handled. Frequently used small items should be stored at or near worktop height. Heavy objects preferably below worktop height. Maximum height for frequently accessed items - 1500.

4. It is assumed in all cases that reach into shelves will not be unduly obstructed by the intershelf interval. The inter-shelf interval for fixed or adjustable shelving should preferably be not less than the depth of the shelf (except where items are stored in trays or drawers).

5. It is also assumed that items stored will be proportional in size to shelf depth. (It cannot be recommended that small items be stored on deep shelves).

6. Maximum heights refer to shelves where the items stored are lightweight, of a size that can be easily handled and are preferably accessed infrequently.

Activities:
Storage. Placing or retrieving items

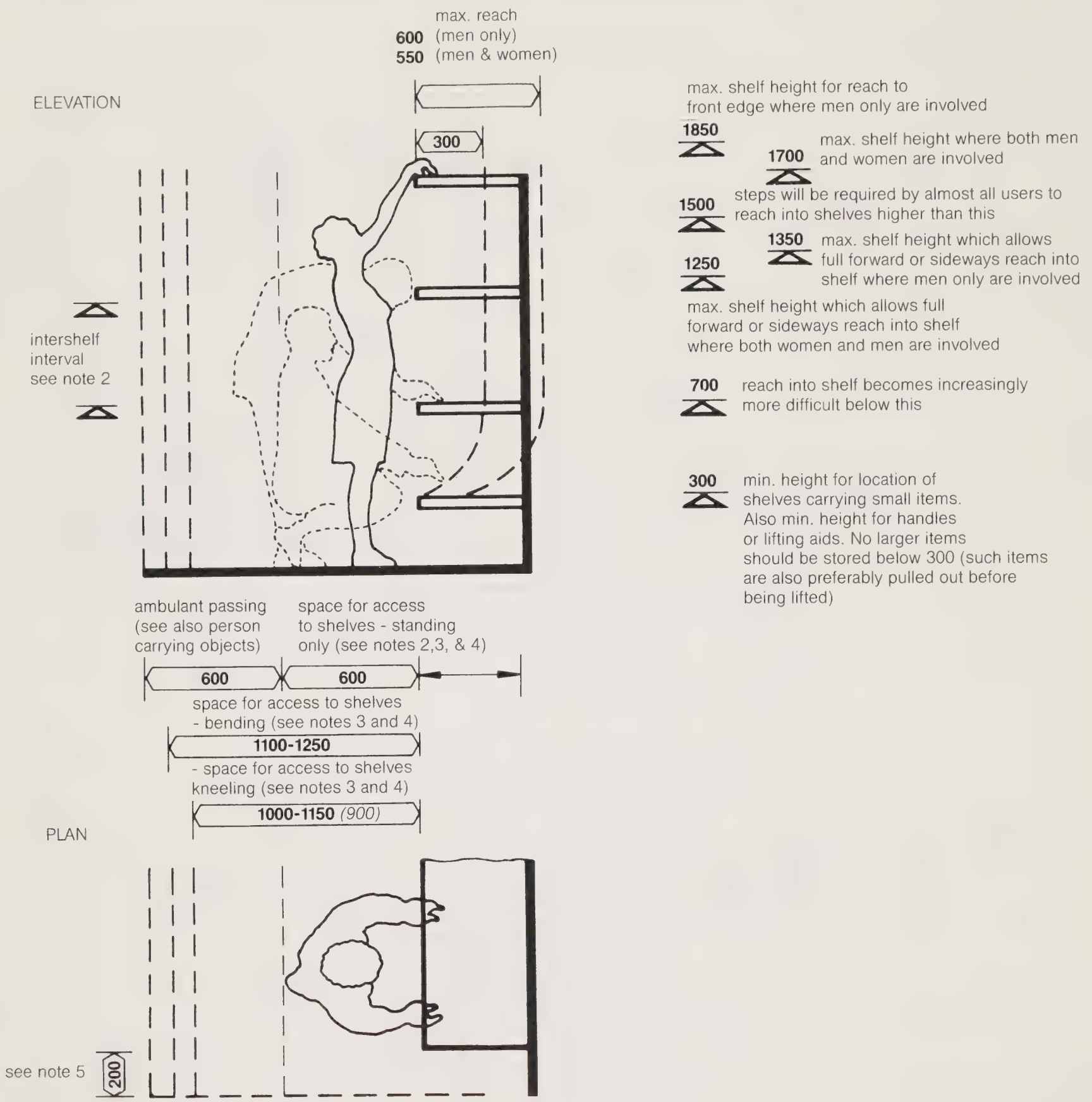
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

3F12

Shelving (racking)

450-600 deep access to one or both sides

Users:
Fully capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Shelf heights and dimensions must be related to the size and weight of items stored and also to the frequency with which they will be handled. Frequently used small items should be stored at or near worktop height, heavy objects preferably below.
Maximum height for frequently accessed items - 1500.

2. It is assumed in all cases that reach into shelves will not be unduly obstructed by the intershelf interval. The intershelf interval for fixed or adjustable shelving should preferably be not less than the depth of the shelf (except where items are stored in trays or drawers).

3. It is also assumed that items stored will be proportional in size to shelf depth. (It cannot be recommended that small items be stored on deep shelves).

4. Access space must take account of object size. Access recommendations are for 450 deep shelves and must be increased proportionately for shelves of greater depth. Where items are very heavy access space may need to be increased by 400-500.

5. Clearance for safe access to heavy or otherwise difficult items, located at the end of shelf or rack (assuming its width of 300 - items that are wider will not necessarily require a greater clearance.)

6. Maximum heights refer to shelves where the items stored are lightweight, of a size that can be easily handled and are preferably accessed infrequently.

Activities
Placing or retrieving items on shelves.

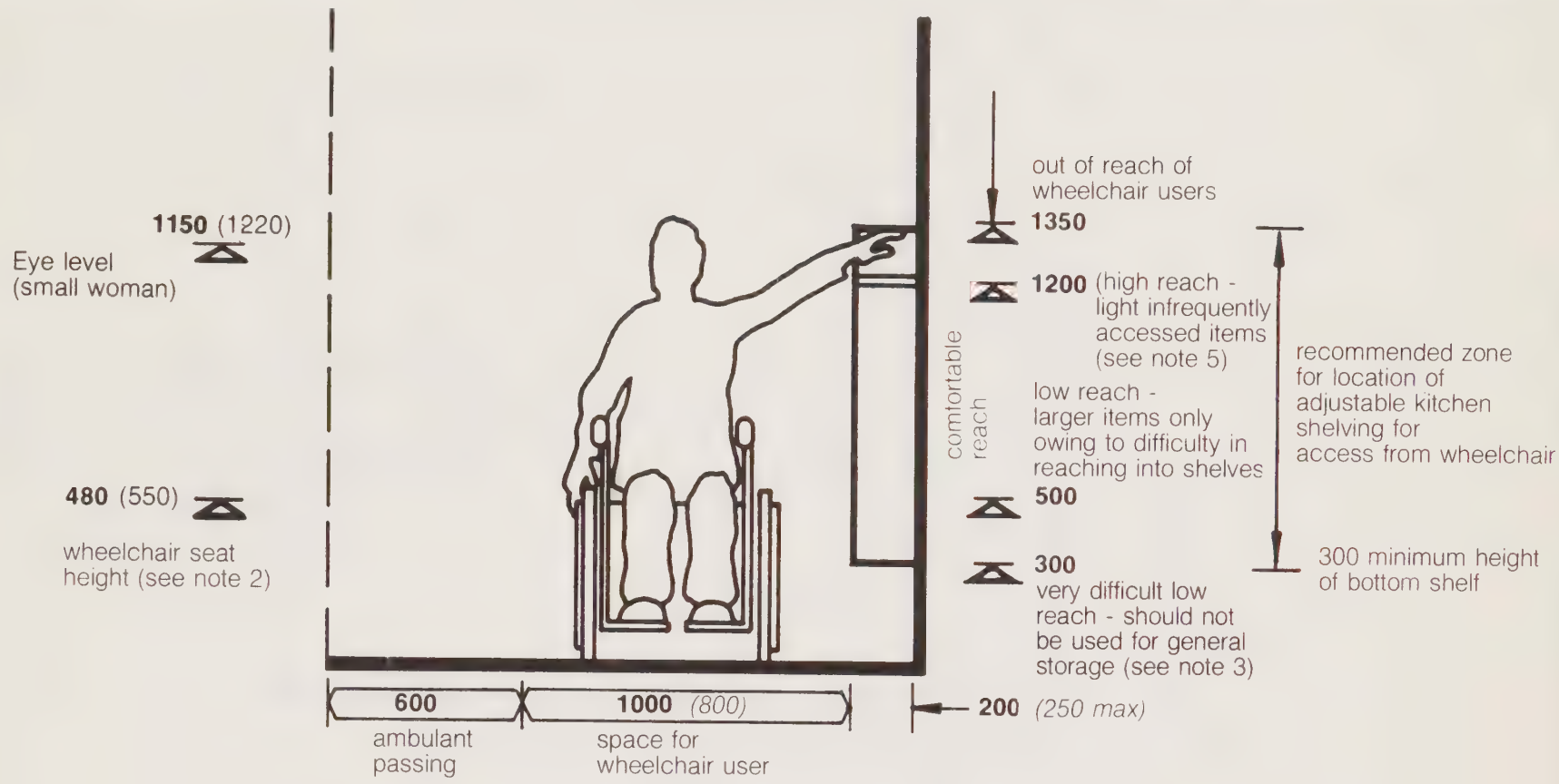
DHSS **Ergonomic data bank:**
Component user data sheet, not to scale.

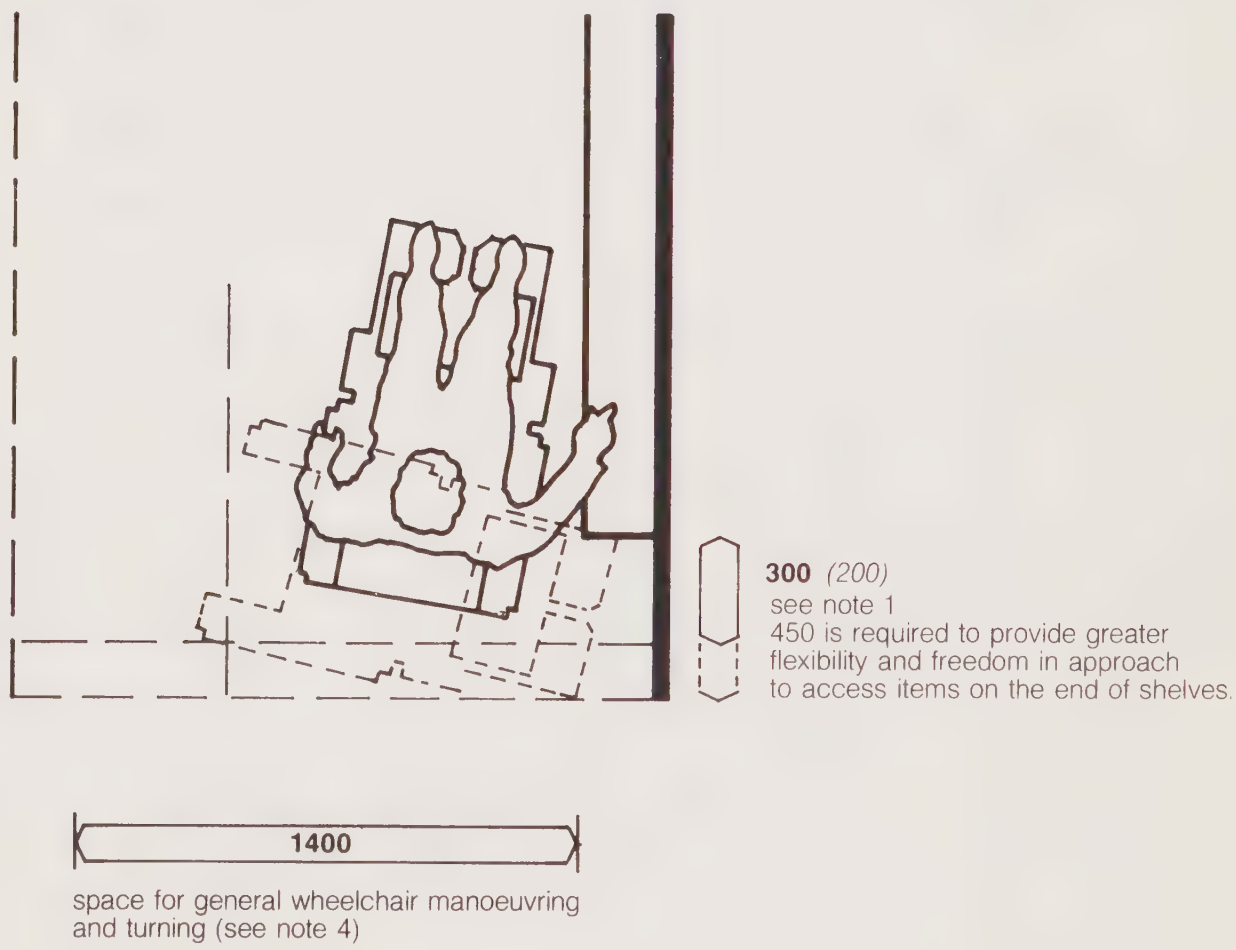
Shelving

3F10

open 200 deep.

Users:
wheelchair users





1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Corner shelving is not easily accessible to wheelchair users, particularly if lateral approach only can be used.

2. A 100mm deep cushion is frequently used by the wheelchair disabled. This can be assumed to increase eye level by 70mm and provide an effective wheelchair seat height of 550.

3. Large items (ie over 300 high) can be stored at or near floor level, provided they can be reached at or above 300. Shelves positioned in this lower zone will however be extremely difficult to clean and may encourage their inadvertent use for the storage of smaller items with resultant inconvenience.

4. This dimension assumes that feet and footrests of wheelchair will pass under lowest shelf to allow turning. Where this is not possible clear dimension must be increased to at least 1500.

5. Maximum height refers to shelves where items stored are lightweight and of a size that can be easily handled.

Activities:
General use

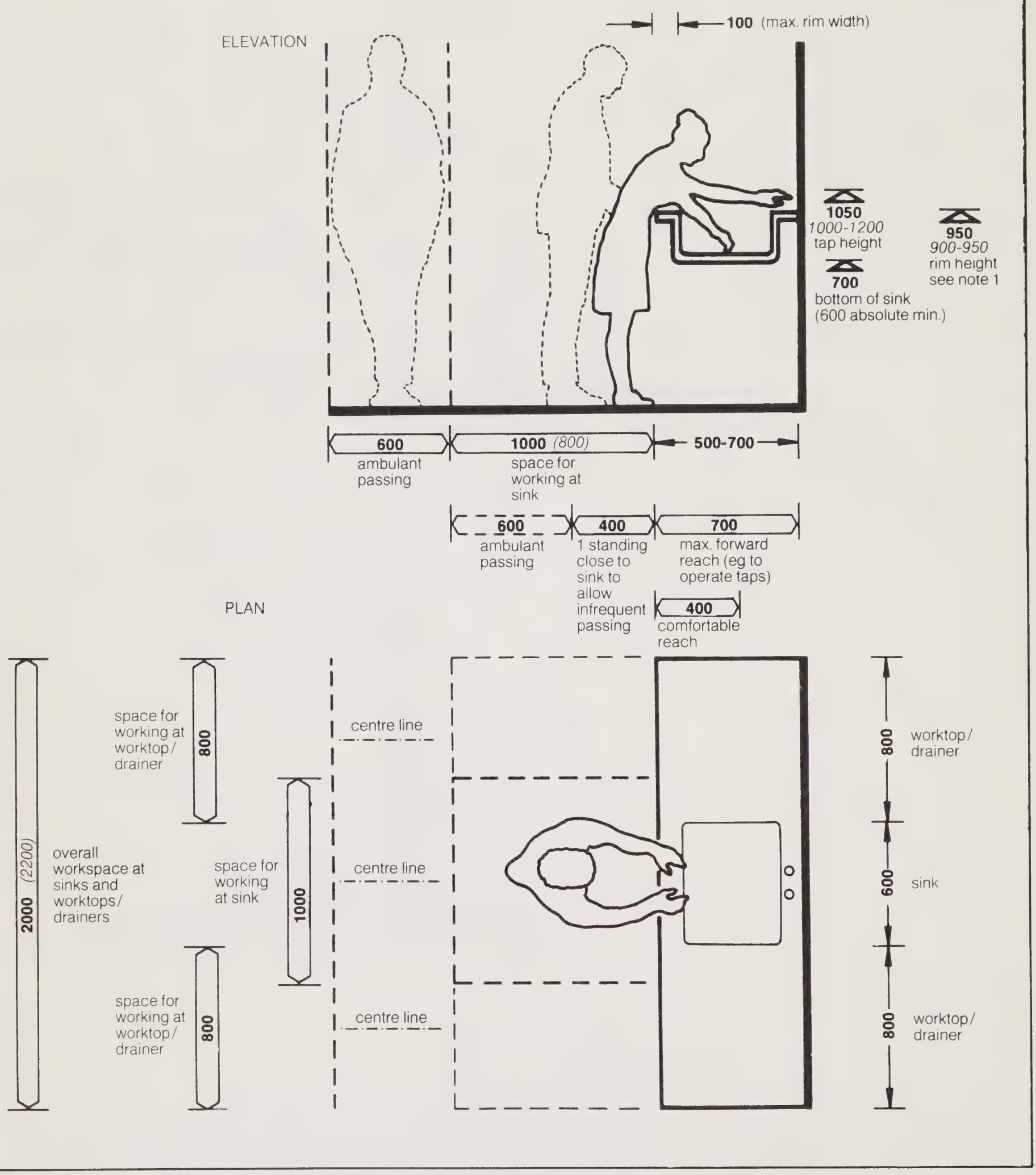
DHSS **Ergonomic data bank Users:**
Component user data sheet, not to scale

2E1

Sink

Stainless steel - single with draining board(s)

Users:
Fully capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The preferred sink rim height for both male and female use in 950. Where it is considered dangerous or visually unacceptable for the sink rim height to be above the worktop height, both should be at 900, although this will result in taller users having to bend down to use the sink.

2. It is preferable that single sinks should have a worktop or drainer on either side, except where sinks are positioned adjacently when a worktop or drainer should be available either side of each double sink arrangement.

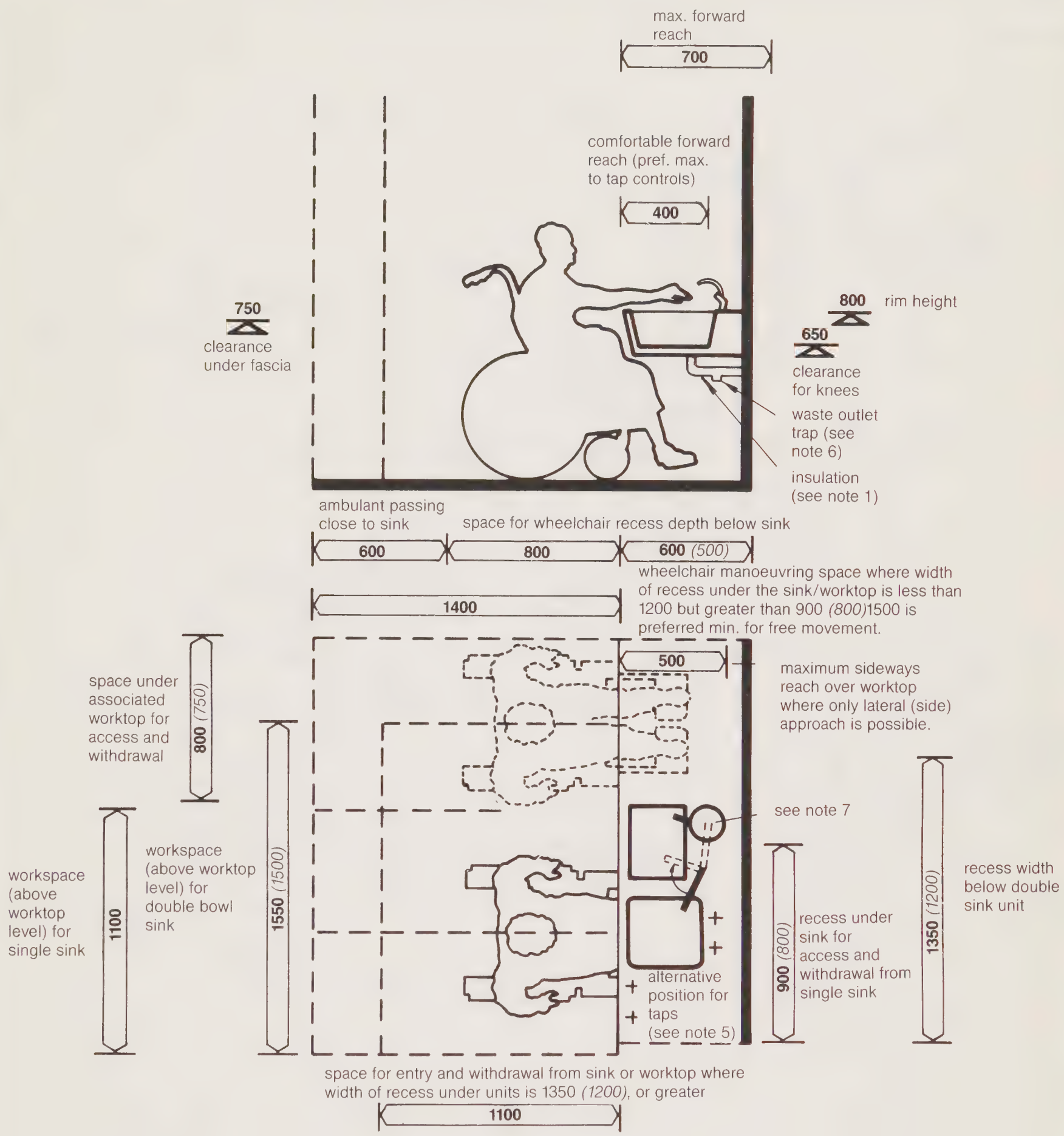
Activities:
General kitchen use

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Sink

2E2

Users:
Wheelchair users



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The underside of sink and exposed pipes must be insulated because of danger of the thighs and knees contacting hot surfaces.

2. The sink should be as deep as possible (140) to minimise spillage.

3. The sink overflow must always be provided as disability may affect tap control.

4. Deep fascias to units should be avoided as they impede wheelchair arm rest and user approach to the sink.

5. Selection and positioning of tap controls should be given careful consideration. Tap controls should preferably be located away from the swivel arm mixer to ensure that access is not obstructed by cascading water. (For users with reach limitations tap controls could be positioned under the drainer rim, provided they do not impede user approach).

6. Waste outlet tap should be positioned near back wall to minimise obstruction to knee access under sink.

7. An adjacent flat surface within reach of a swivel arm mixer is an important requirement for filling saucepans and kettles.

Activities
Attaching/detaching hose.
Emptying and replacing cleaner bags.
Storage when not in use.

DHSS **Ergonomic data bank**
Component user data sheet, not to scale

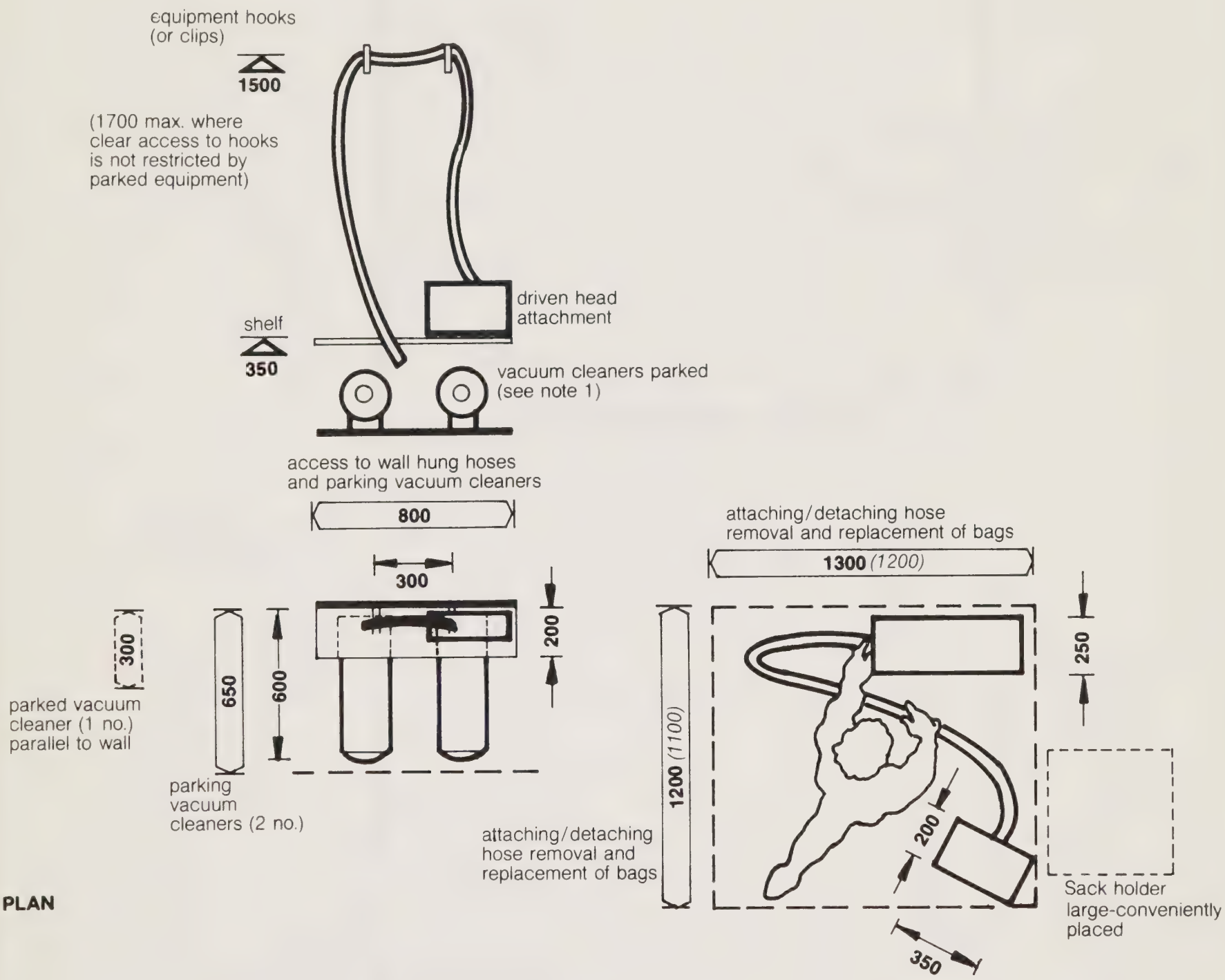
Suction cleaner

8G3

Cylinder type with driven head attachment

Users
Domestic staff

ELEVATION



PLAN

1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:

1. The cylinder cleaner is best parked on its castors, although it occupies less space parked in an upright position. It is unstable in this position and tipping it up on end involves a potentially hazardous bending.

2. The driven head is permanently attached to the hose and cable. This should preferably be stored on equipment hooks or clips. The head should be supported on a shelf or similar support clear of the floor so as not to impede room cleaning.

Activities:
Access to and use of dining tables and chairs (self service and clearing by catering staff)

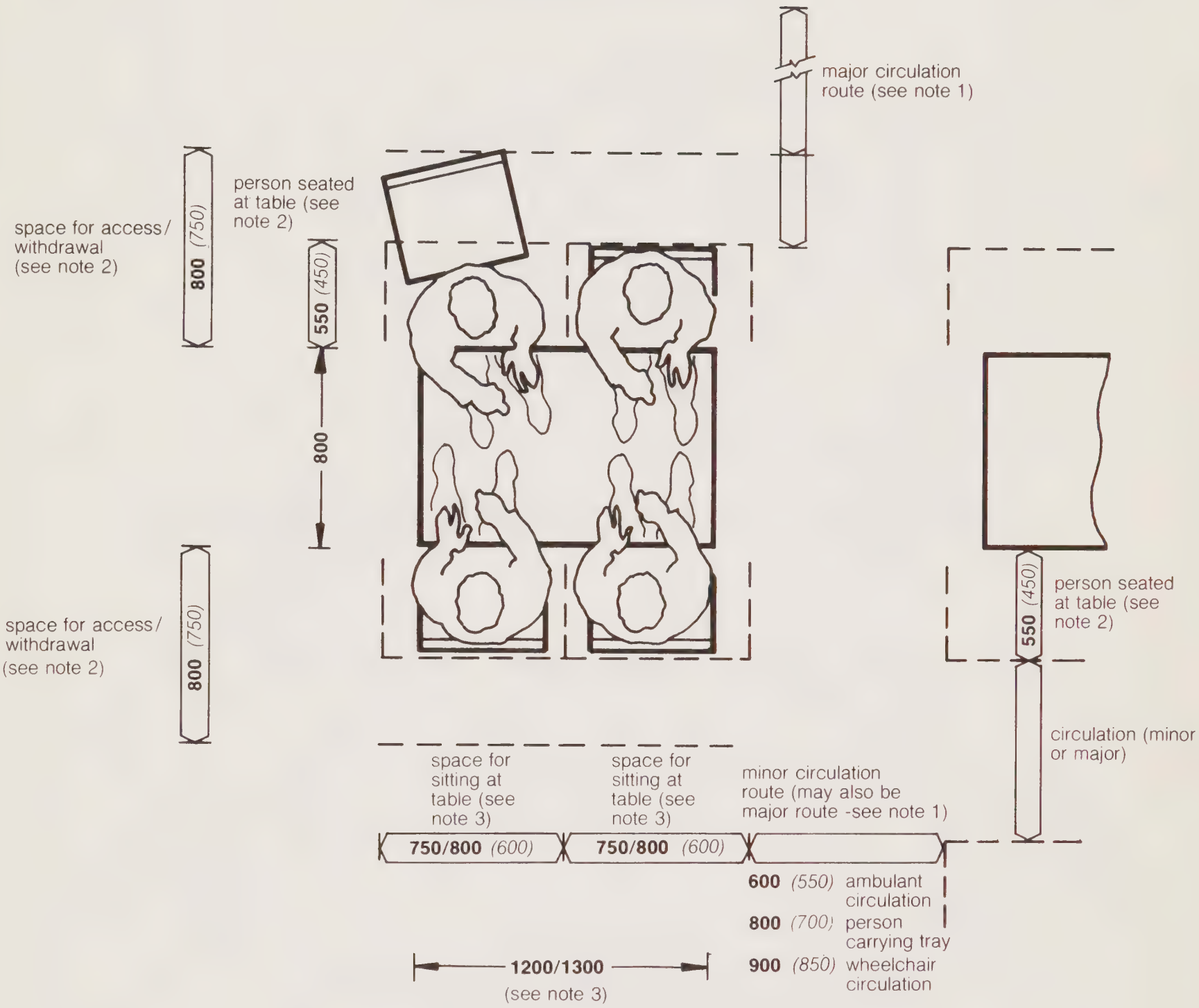
DHSS · **Ergonomic data bank:**
Component user data sheet, not to scale

Table

3G1

Dining (rectangular)

Users:
Fully and partially capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

1. Width of major circulation routes dependent on traffic conditions ie the number and frequency of people using a route, the frequency of passing conditions occuring and need to move equipment (eg width of route allowing frequent passing of 3 people carrying trays = 800 + 800 = 1600. 1600 also allows infrequent passing of wheelchair user and person carrying a tray (eg 900 (700) etc) Width of minor routes - is dependent on number and frequency of people using the route and the possible need to move equipment. N.B. The drawings above do not allow for circulation between two back to back users withdrawn from table.

2. Where upholstered chairs are used space for person seated at table should be increased from 550 (450) to 600 (650) and space for withdrawal from 800 (750) to 900 (800).

3. A reduction in width of space for person sitting at table from 800 to 750 is acceptable with a 1200 width table. The restricted dimension (600) is applicable where passing in infrequent. The larger table length of 1300 is preferred for debilitated or disabled users. The table width of 900 is more satisfactory where wheelchair users have to be occasionally accommodated.

Activities:
Access to and use of dining tables and chairs (self service and clearing up by catering staff).

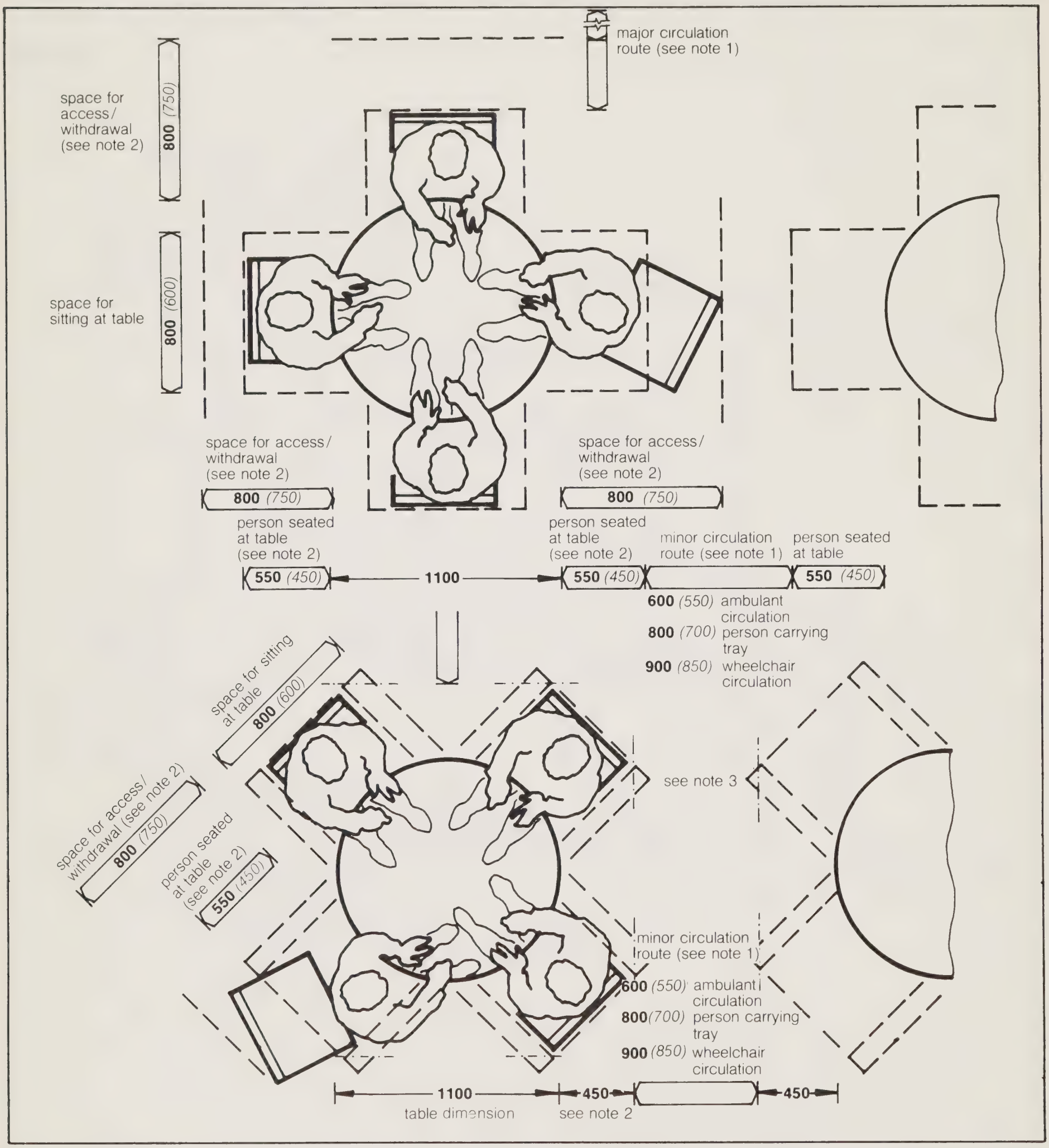
DHSS **Ergonomic data bank:**
Component user data sheet, not to scale

Table

363

Dining (round)

Users:
Fully & partially capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Width of major circulation routes - dependent on traffic conditions ie the number and frequency of people using a route, the frequency of passing conditions occuring and need to move equipment (eg width of route allowing frequent passing of 2 people carrying trays = 800 + 800 = 1600. 1600 also allows infrequent passing of wheelchair user and person carrying a tray ie 900 - (1700) etc) Width of minor routes - is dependant on number and frequency of people using the route and the possible need to move equipment. N.B. The drawings above do not allow for circulation between two back to back users withdrawn from table.

2. Where upholstered chairs are used space for person seated at table should be increased from 550 (450) to 600 (500) and space for withdrawal from 800 (750) to 900 (800). Also for angled table arrangement 450 dimension between circulation space and corner of table should be increased to 500 for upholstered chair.

3. As significant arm movements take place forward of chair backrest it is possible to overlap user space for diners and circulation space in the angled table arrangement, it is recommended therefore that the circulation widths relate to the restricted (600) width of space for diners.

Activities:
Access to and use of dining tables and chairs (self service and clearing up by catering staff).

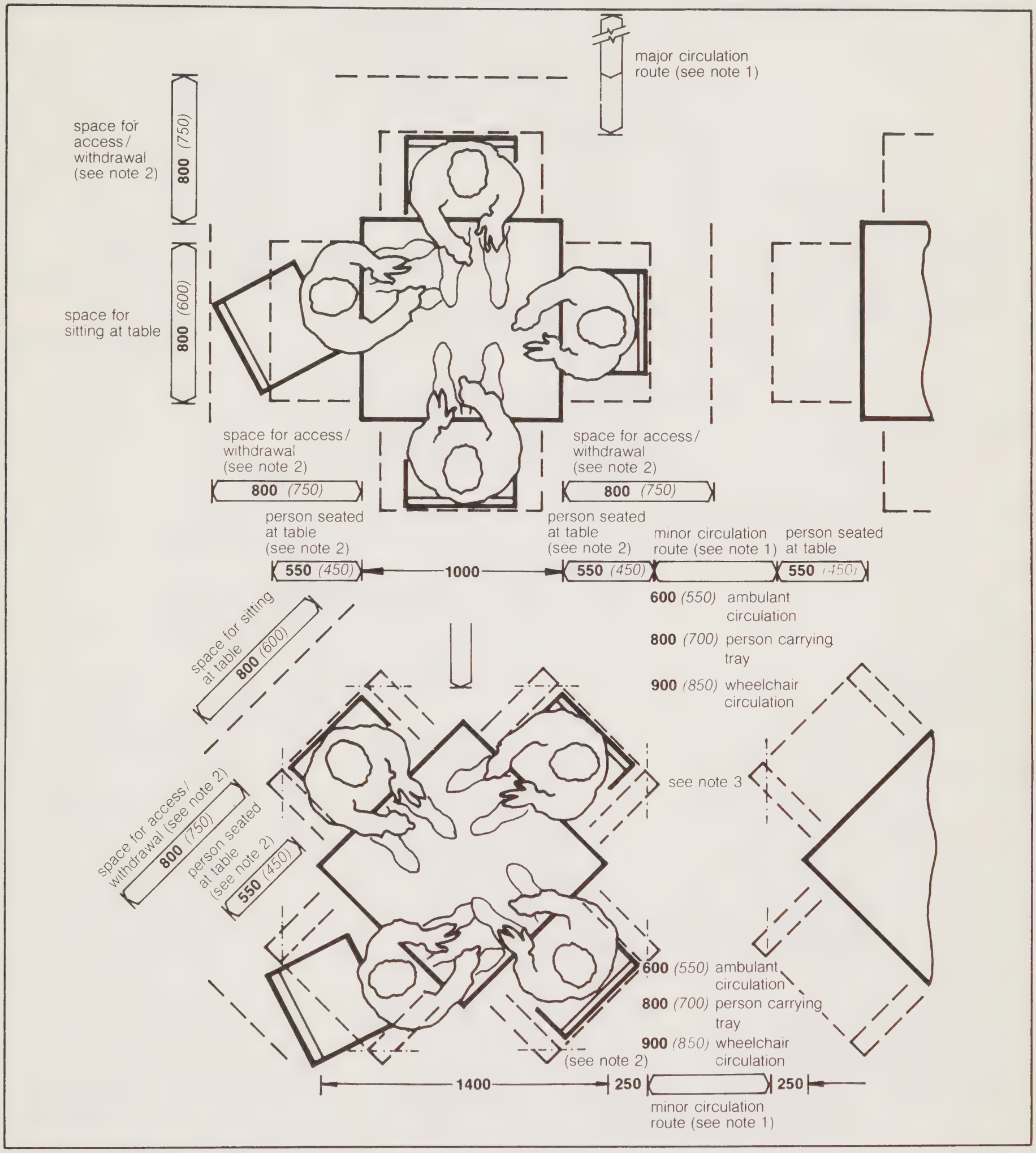
DHSS **Ergonomic data bank:**
Component user data sheet, not to scale

Table

3G2

Dining (Square)

Users:
Fully & partially capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Width of major circulation routes - dependent on traffic conditions ie the number and frequency of people using a route, the frequency of passing conditions occuring and need to move equipment (eg width of route allowing frequent passing of 2 people carrying trays = 800 + 800 = 1600. 1600 also allows infrequent passing of wheelchair user and person carrying a tray ie 900 - (1700) etc) Width of minor routes - is dependent on number and frequency of people using the route and the possible need to move equipment. N.B. The drawings above do not allow for circulation between two back to back users withdrawn from table.

2. Where upholstered chairs are used space for person seated at table should be increased from 550 (450) to 600 (500) and space for withdrawal from 800 (750) to 900 (800). Also for angled table arrangement 250 dimension between circulation space and corner of table should be increased to 300 for upholstered chair.

3. As significant arm movements take place forward of chair backrest it is possible to overlap user space for diners and circulation space in the angled table arrangement. It is recommended therefore that the circulation widths relate to the restricted (600) width of space for diners.

Activities:
Sitting and eating a meal, including user and service access

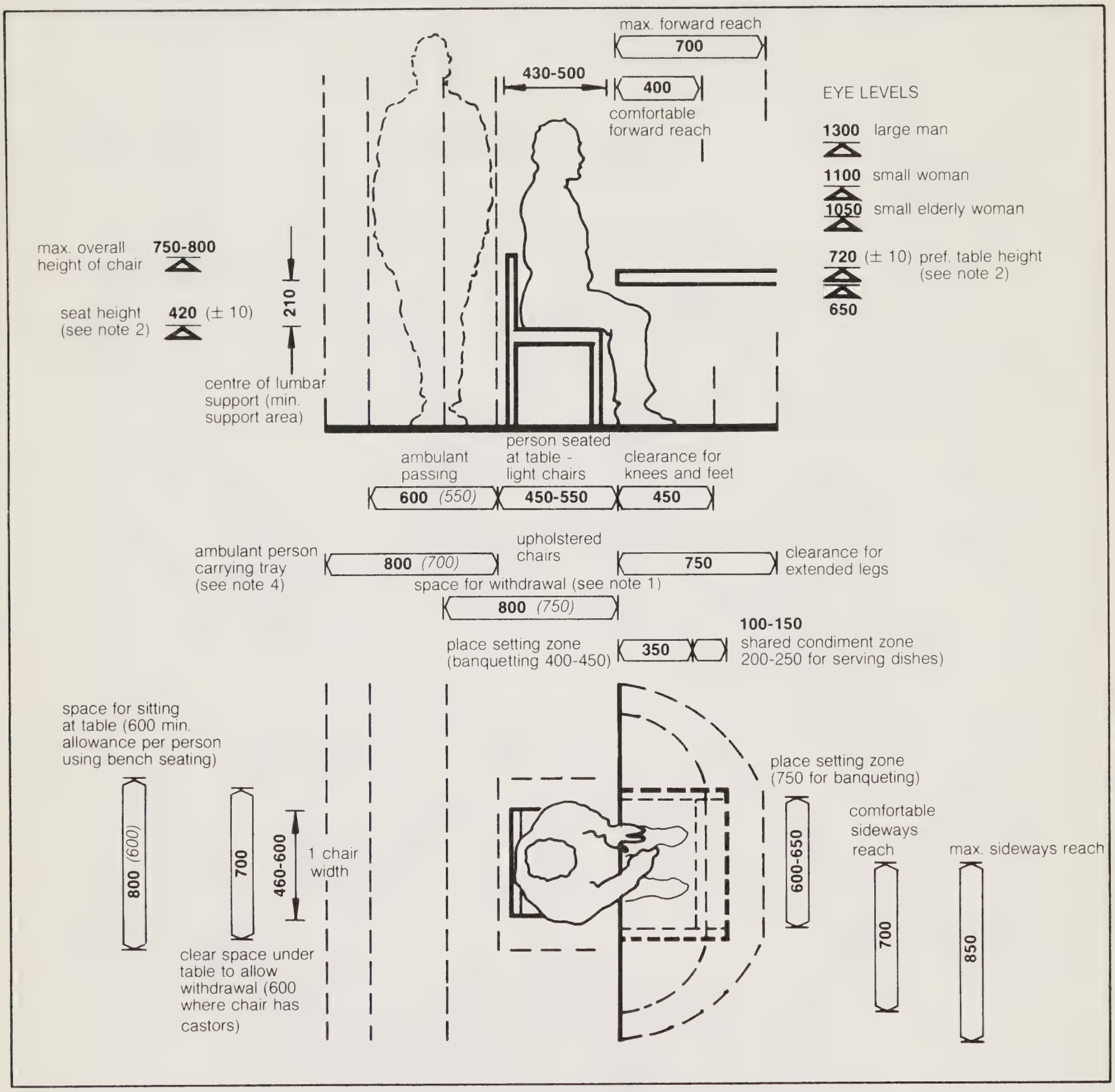
DHSS **Ergonomic data bank:**
Component data sheet, not to scale

Table & Chair

3G8

Upright

Users:
Fully and partially capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Space for withdrawal - (750) is acceptable where the obstruction behind the chair is low level - ie 800 or below. Where the chair is upholstered the corresponding dimensions are 900 (800).

2. Alternative higher table and seat heights are possible that will also allow restricted use by wheelchair users, thus avoiding segregation ie 750-770 max. table height and 470 (± 10) chair height (these recommendations are however less satisfactory for smaller users especially female - see also note 5.

3.(a) Maximum angle of seat place 4°. The seating surface may be flat, sloped or include dishing. Any dishing should not exceed 10mm in depth and occur in the back 2/3 of the seat length, with the deepest part 3/4 length back from front edge.

(b) Angle between seat and backrest planes 95° to 100° max for dining chairs.

4. Circulation space behind chair 800 circulation is preferred as this also allows access (slightly restricted) by semi-ambulant users.

5. Ergonomic objectives for CHAIR/TABLE combintation

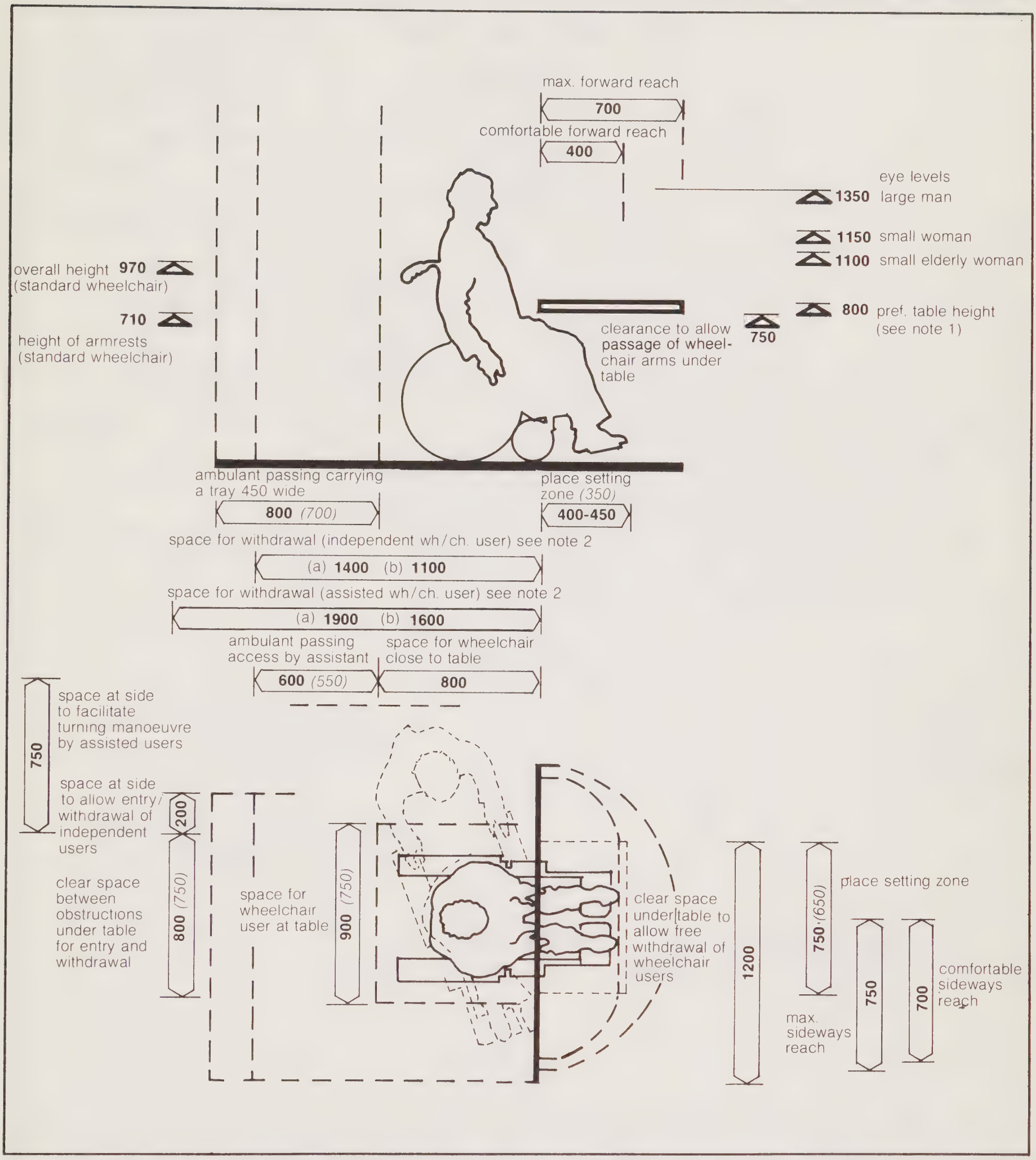
(a) Shod feet should be flat on floor, with no pressure at front or seat between seating surface and thighs.
(b) Front edge of seat must not impose pressure on back of legs - ie seat length must be adequate but not too long.
(c) The clearance between underside of table and seat surface must allow freedom of table and seat surface must allow freedom of movement for thighs.
(d) Ideally the chair/table combination should be such that the users elbows are approximately level with the table top when upper arm is vertical.
(e) The chair should provide firm back support in the lumbar region but below the shoulder blades.
(f) Preferably there should also be adequate clearance between the backrest and seat to allow free movement of the buttocks.

Activities
Sitting and eating a meal, including approach and withdrawal from table and service access

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Table
3G4
Dining

Users
Independent and assisted wheelchair users



1350 *(1300)*

Preferred minimum — *Restricted minimum (not recommended for general use; see explanatory notes)*

Notes

1. The ergonomic principles involved are similar to those for normal dining chair/table combinations, except that some compromises are necessary to combat wheelchair dimensional characteristics e.g. table height is approx. 50mm higher than user elbow height and therefore not satisfactory for smaller female users. Alternatively a table height of 750 is preferable but may not offer adequate clearance under the table, or be dangerous in that hands or thighs may be pinched when approaching the table - which is critical where users suffer from sensory loss. Some consideration should however be given to a 750 high table as this can also be used by ambulant and wheelchair users (but is less satisfactory for small females). This avoids the segregation of facilities for ambulant and wheelchair users.

2. Space for entry and withdrawal:

(a) refers to space required for more difficult manoeuvre of going in and out of an undertable space 800 wide. This is a commonly occuring requirement e.g. for a 1000 square table where it is necessary to reverse out of the undertable space before turning vice versa.

(b) refers to conditions where full turning of the chair under the table is possible in at least one direction during entry or withdrawal.

Activities:
Approach to and withdrawal from dining table
Use of dining table
(see also TABLE wheelchair users data sheet)

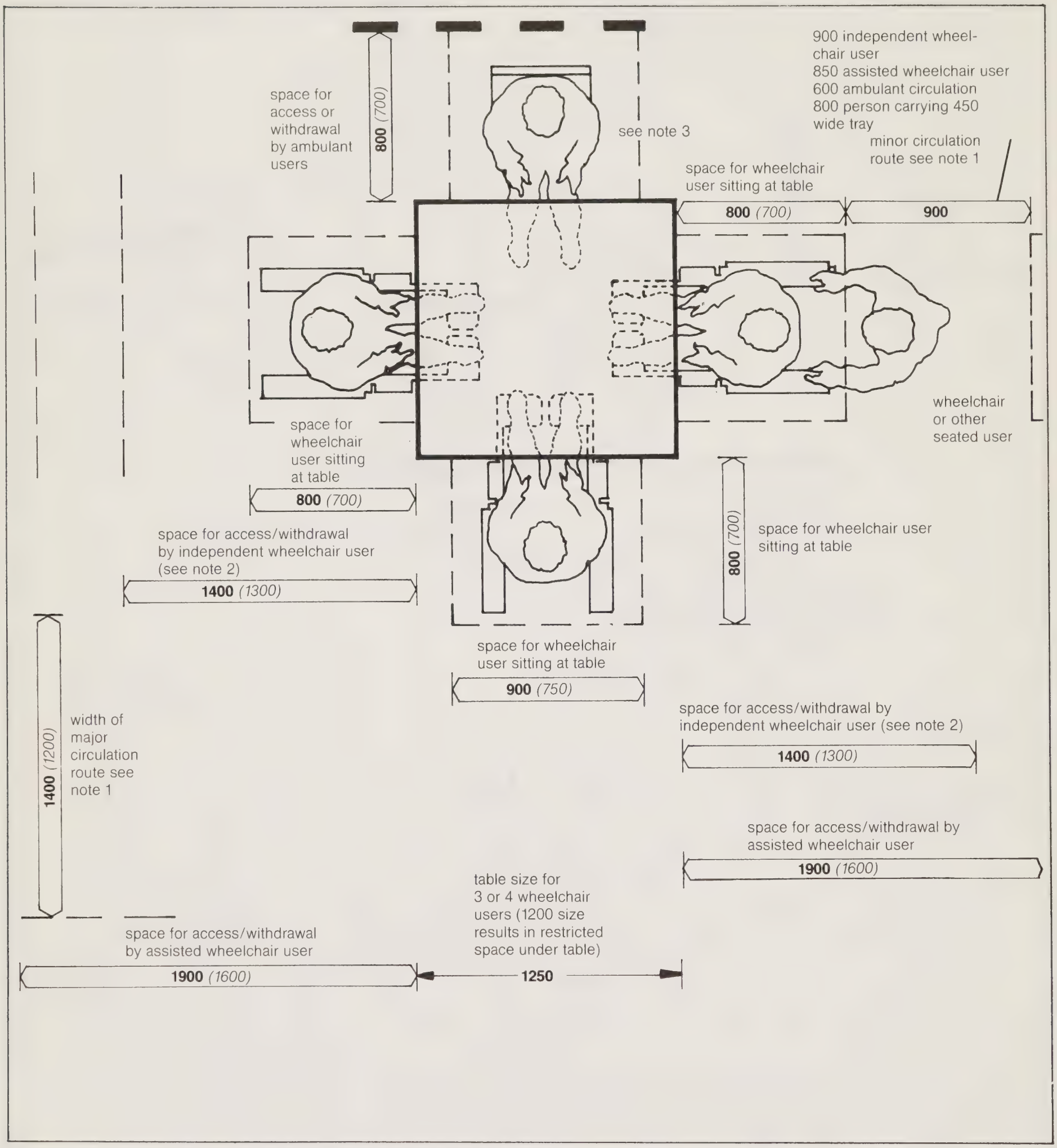
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

3G6

Table

Dining (square)

Users:
assisted and independent wheelchair users



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The width of major circulation routes is dependent on the traffic conditions i.e. numbers and frequency of wheelchair and trolley and ambulant persons using the route. e.g. Where space for the frequent passing of 2 independent wheelchair users is required, the width of circulation route is 900 + 900 = 1800. The 1400 (1200) dimension given above relates to the minimum requirements of ambulant serving staff only.

2. The (1300) dimension applies only where clear width under table is 1000 or greater. Where access/withdrawal is unimpeded by table legs (i.e. a clear width under table in excess of 1200) the depth of space can be reduced to an absolute minimum of 1100.

3. It is not economical or convenient to position wheelchair users in positions backed by a wall. Therefore, this position should be used by an ambulant person. Manoeuvring should preferably make use of space used generally for circulation.

Activities:
Approach to and withdrawal from dining table
Use of dining table
(see also TABLE wheelchair users data sheet)

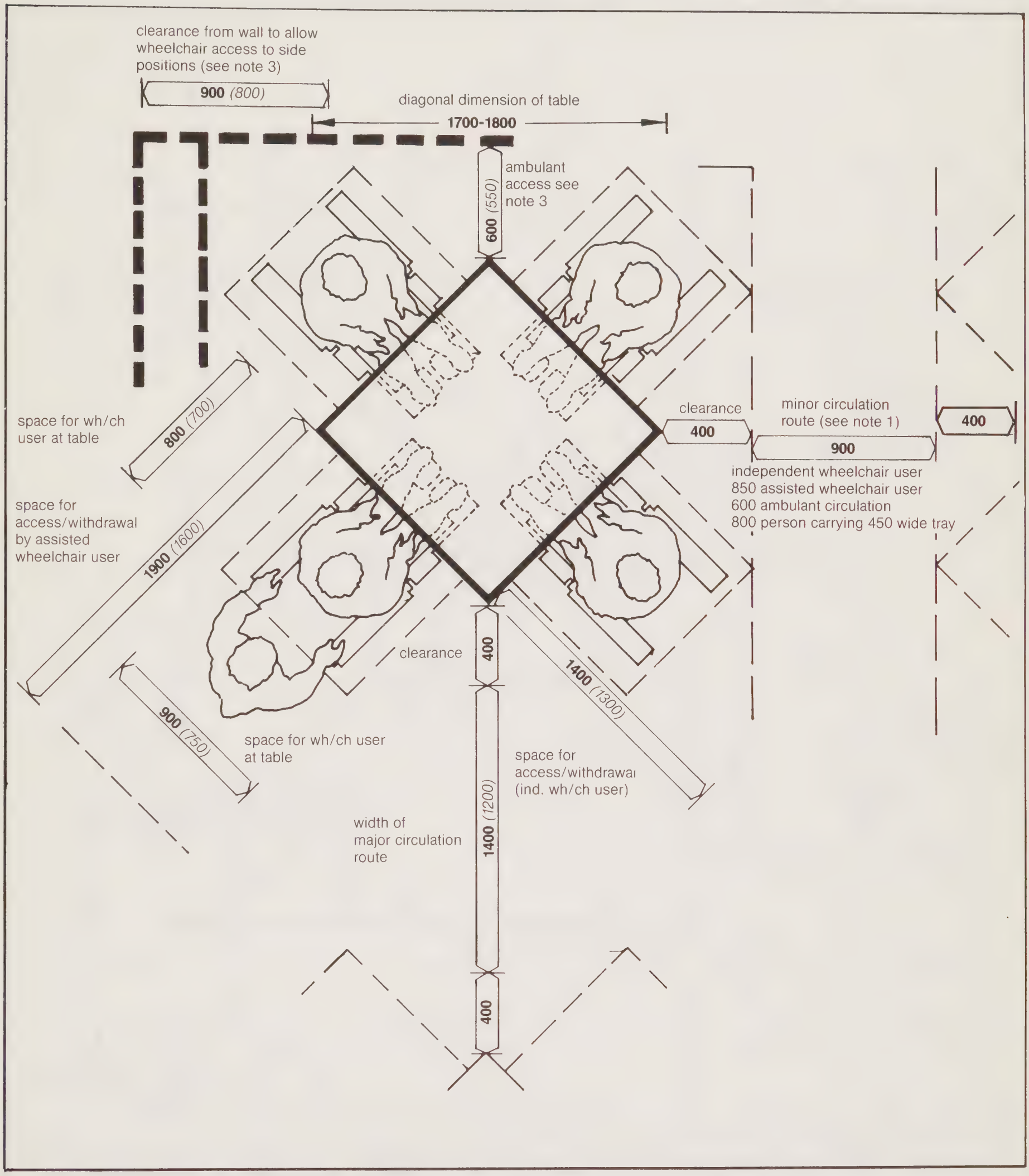
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Table

365

Dining (square)

Users:
assisted and independent wheelchair users



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The width of major circulation routes is dependent on the traffic conditions i.e. numbers and frequency of wheelchair and trolley and ambulant persons using the route. e.g. Where space for the frequent passing of 2 independent wheelchair users is required the width of circulation is 900 + 900 = 1800. The 1400 (1200) dimension given above relates to the minimum requirements of ambulant serving staff only.

2. The recommended clear width of space under the table, between legs is 1500 (1400) i.e. greater or equal to the functional length of table top. This requirement and consequent leg displacement is advantageous in that it permits tables to be stacked for storage.

3. Where space to access side positions in a corner table accommodates wheelchair users, then restricted manoeuvring space is available for an independent wheelchair user to access the corner position. However, this will be difficult and cannot therefore be recommended. Generally wheelchair tables should not be positioned in the corner of a room.

Activities:
Approach to and withdrawal from dining table
Use of dining table
(see also TABLE wheelchair users data sheet)

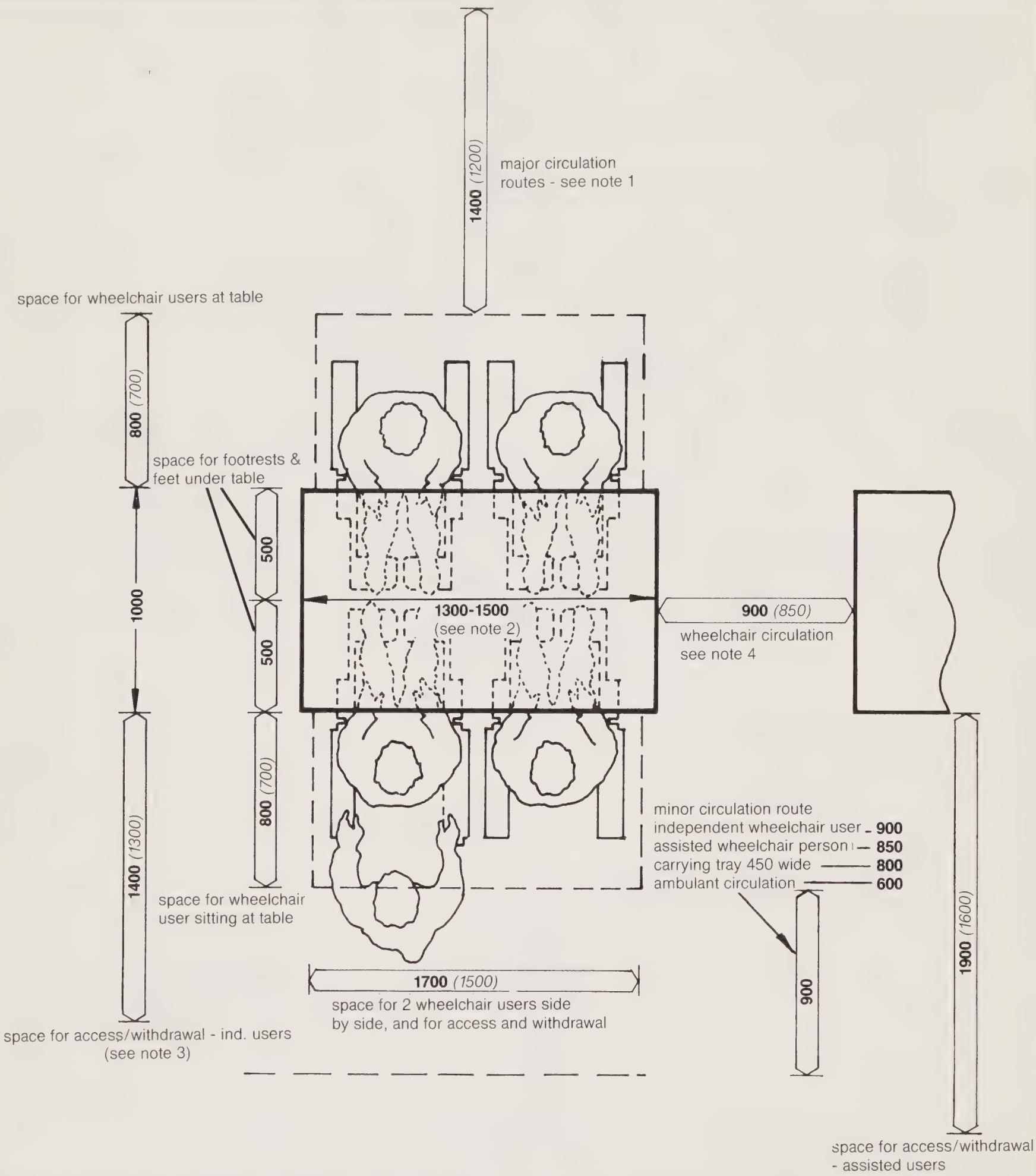
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

3G7

Table

Dining (rectangular)

Users:
assisted and independent wheelchair users



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. The width of major circulation routes is dependent on the traffic conditions i.e. numbers and frequency of wheelchair and trolley and ambulant persons using the route. e.g. Where space for the frequent passing of 2 independent wheelchair users is required, the width of circulation route is 900 + 900 = 1800. The 1400 (1200) dimension given above relates to the minimum requirements of ambulant serving staff only.

2. The recommended clear width of space under the table between legs is 1500 (1400) i.e. greater or equal to the functional length of table top. This requirement and consequent leg displacement is advantageous in that it permits tables to be stacked for storage.

3. The (1300) dimension applies only where the clear width under the tables is 1000 or greater. Where access/withdrawal is impeded by table legs (i.e. a clear width under table in excess of 1200) the depth of space can be reduced to an absolute minimum of 1100. However, this lesser dimension should not be used where 2 wheelchair users frequently use the table side by side as shown above.

4. 1000 (950) is preferred for frequent movement by independent wheelchair users between several tables in a large dining room. Movement past a single pair of tables can be achieved in 800 but movement is very restricted.

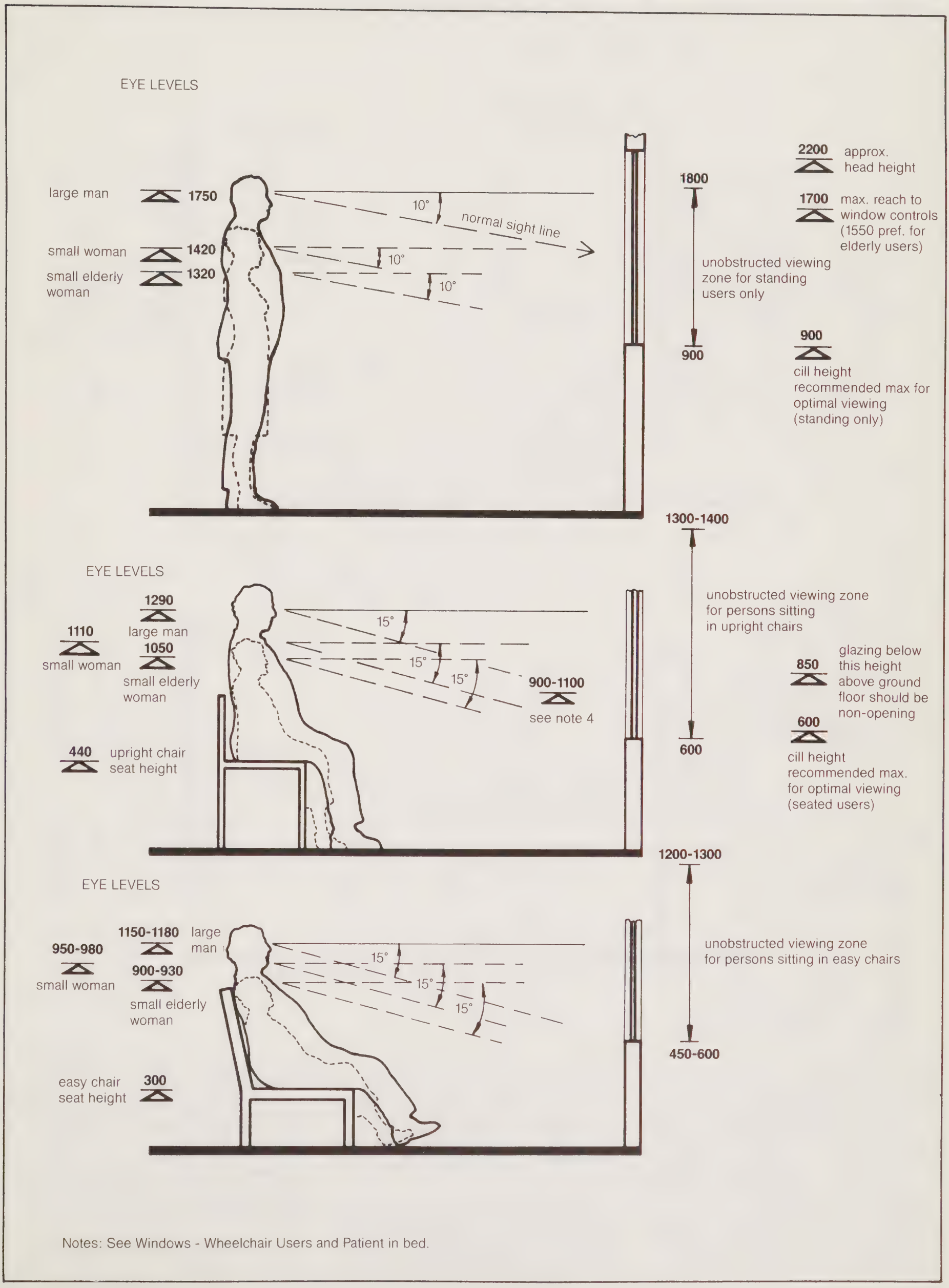
Activities:
Looking out of windows, use of window controls

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Windows

4H1

Users:
Standing and seated users



Notes: See Windows - Wheelchair Users and Patient in bed.

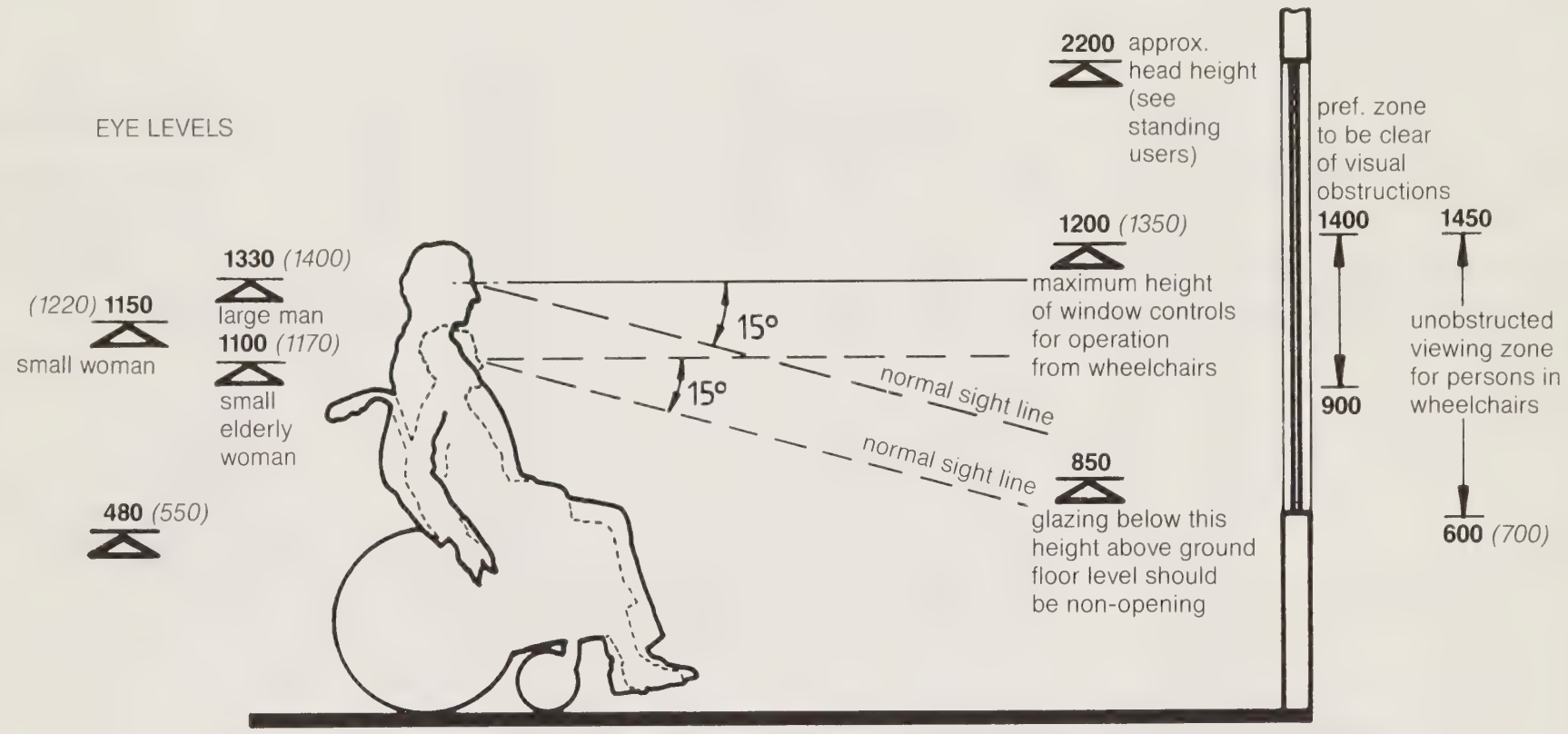
Activities:
Looking out of windows, use of window controls

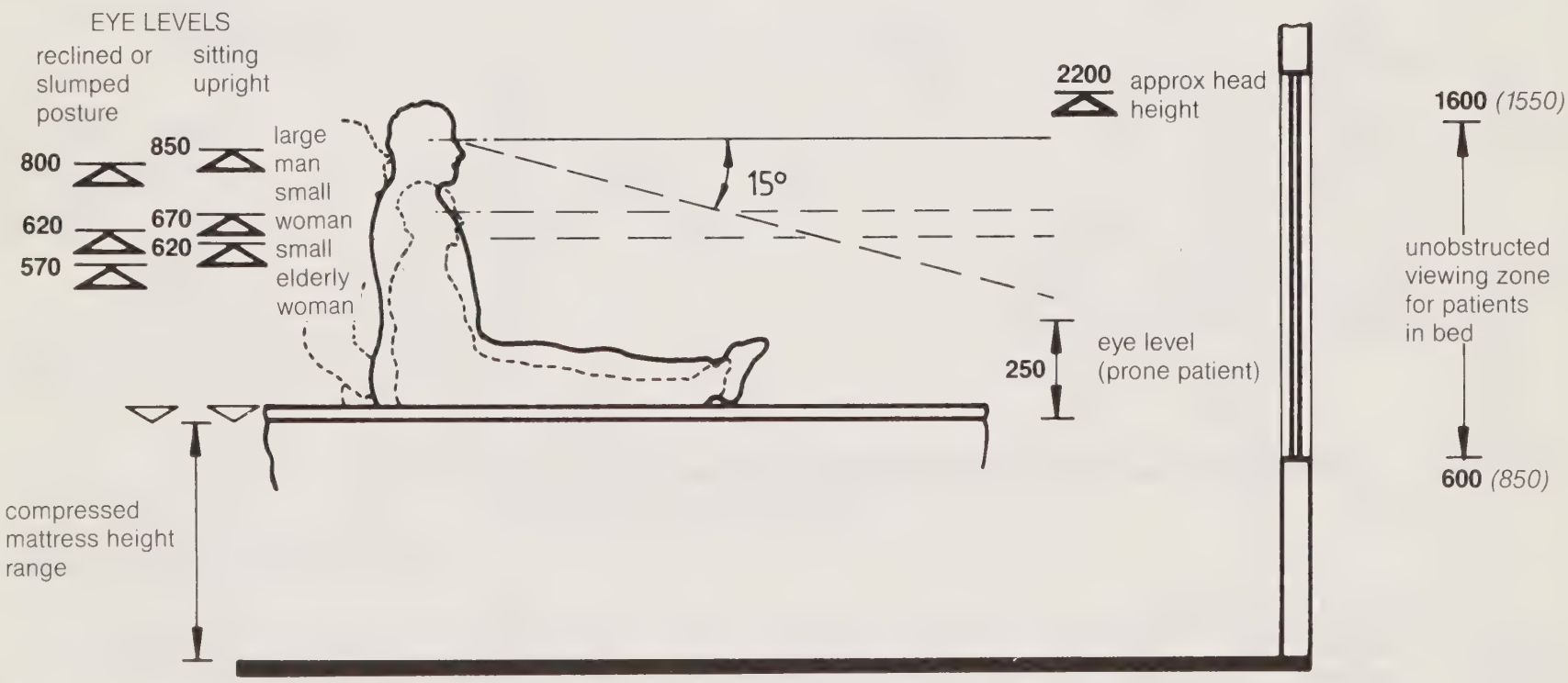
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

Windows

4H2

Users:
wheelchair users
patients in bed





425	(divan)
555	(hospital type)
685	(King's Fund - fixed height)
485-915	(King's Fund - variable height)

1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. It is difficult to give specific recommendations for window sizes, as this depends upon specific needs, such as view, privacy, overlooking, and varying factors such as viewing distance and user postures. Generally, where view is a requirement transomes should not obstruct the sight lines of frequent users in the principal postures adopted.

2. The theoretical standard line of sight is horizontal but in practice the natural line of sight is approx. 10° below the horizontal for standing users and 15° below the horizontal for seated users. In more relaxed postures these angles may increase to 30° and 38° respectively. This applies particularly to short viewing distances (say up to 15M).

3. No other preference for window head height can be stated, especially related to standing users. However, if the window head height is too high it can cause glare for seated persons.

4. Guard rails are required for first floor and above in public areas.

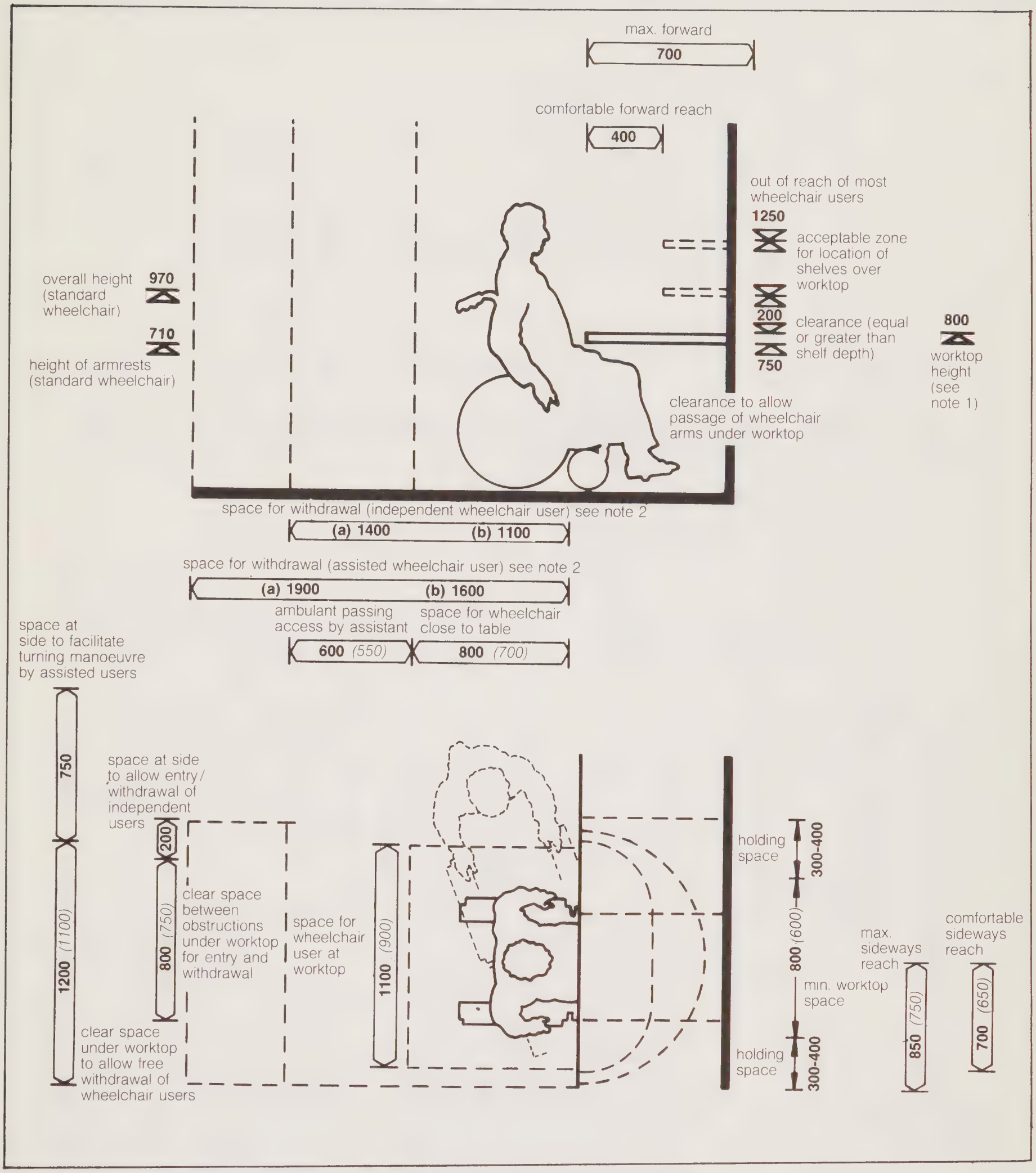
Activities
General manual tasks.
Placing or retrieving items on shelf over worktop.

DHSS **Ergonomic data bank**
Component-user data sheet, not to scale

Worktop Bench 3H3

(with or without shelf over)

Users
Independent and assisted wheelchair users.



1350 (1300)

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:

1. Fitting heights to tasks if difficult in the case of wheelchair users as compromises are necessary to combat different wheelchair characteristics e.g. 800 worktop height is approx 50mm higher than user elbow height, therefore not satisfactory for small female users. A table height of 750 is preferable for smaller users but may not offer adequate clearance under the worktop. This can be dangerous in that hands or thighs may be pinched when approaching the worktop, which is critical where users suffer from sensory loss. Some consideration should however be given to a 750 high worktop as this can also be used by most seated ambulant users (but is less satisfactory for small ambulant females). This avoids the segregation of facilities for ambulant and wheelchair users.

2. (a) Refers to space required for the more difficult manoeuvre of going in and out of an underworktop space 800 wide. (b) Refers to conditions where full turning of the chair under the table is possible in at least one direction during entry or withdrawal.

Activities:
General manual tasks

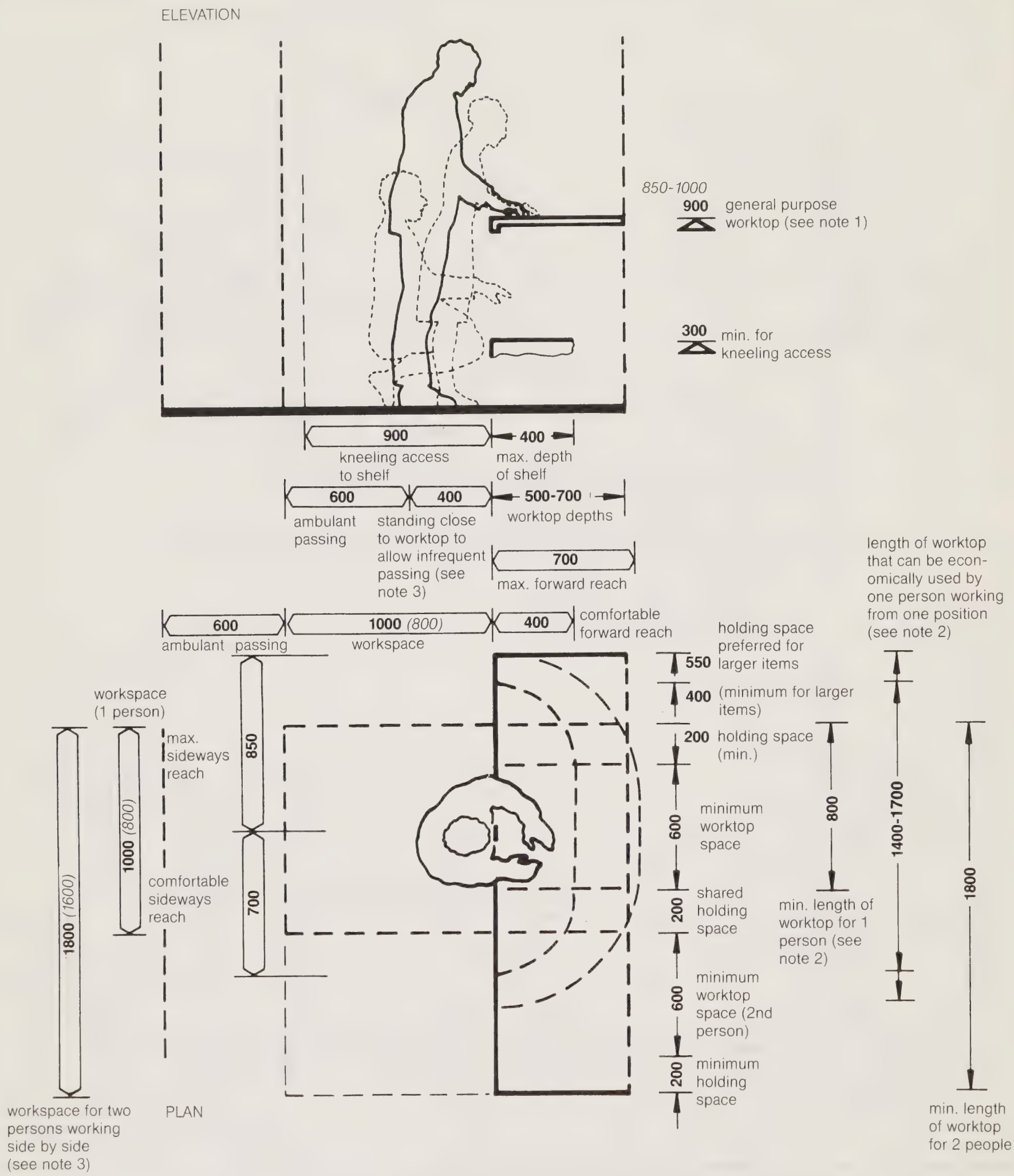
DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

3H1

Worktop/Bench

With or without shelf under

Users:
Fully capable adults



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Worktop heights - should be suited to both the stature (elbow height) of the user and the nature of the work undertaken. Heavy work generally requires lower worktop than light or delicate work where elbow support may be beneficial. The range shown is suitable for both male and female users, viz. 850 heavy manual work; 900 light manual work; 950-1000 delicate work. Individual special tasks may require specific recommendations - see also Worktop/Bench - working heights.

2. Worktop space requirements must be related to actual tasks undertaken and size of items for which associated holding space is required. Most light manual tasks will require a length of worktop of 600 plus an additional holding space. The minimum holding space recommendation of 200 may be inadequate for some tasks.

3. Requires that work must stop when a person is passing.

Activities:
Working heights

DHSS **Ergonomic data bank:**
Component-user data sheet, not to scale

3H2

Worktop/Bench

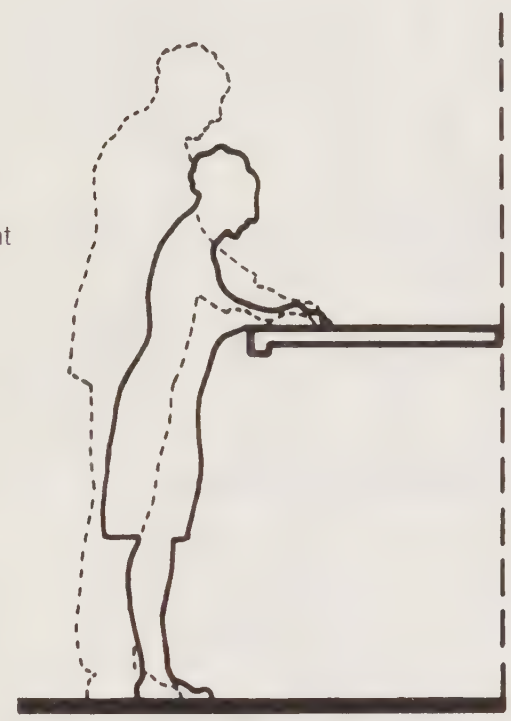
Users:
Staff - Fully capable adults

WORKTOP HEIGHTS FOR STANDING WORK

average elbow height

MEN **1040**

WOMEN **980**



DELICATE WORK		LIGHT MANUAL WORK		HEAVY MANUAL WORK		GENERAL PURPOSE WORKTOPS
Men	Women	Men	Women	Men	Women	
1100 / 1000	1050 / 950	950 / 900	900 / 850	900 / 750	850 / 700	1000 / 850 (acceptable range for both male and female use 1000-950 delicate work 900 light work 850 heavy work); 900 (preferred height for standard fixed worktop)

1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes

1. Working heights for standing activities must be suited to:
a) the elbow height of the operative
b) the nature of the manual task undertaken
Additional consideration may be required to be given to:
c) some critical requirements of the work
d) the characteristics of the tools used
e) the working habits of the operatives

2. The following are general principles:
a) if the work calls for the application of considerable force, involving muscles of the back and shoulders, then the worktop should be well below elbow height - ie 150mm or greater.
b) if the work undertaken is delicate, and benefit can be derived through relieving muscular stress on the back and arms by resting the elbows on the worktop, then the worktop should be at or slightly above standing elbow height.
c) for general manipulative tasks which do not require much strength, the worktop should be 100-150 mm below standing elbow height. This recommendation may however be affected by the nature and amount of handling work involved, and in particular the size of the objects (boxes, containers, etc.) handled. For example, working with containers or receptacles necessitates a lower working height.

3. Research shows a high correlation between heights considering physiologically correct and heights favoured and considered right by the practised users.

4. In composite work situations, difficulties can arise from the need to provide a variety of optimum worksurface heights to suit the characteristic requirements of individual tasks - e.g. in kitchens, sink rim heights should be 100-150 mm higher than the cooker hob, with most standing preparation worktops somewhere between these extremes. It may be inherently dangerous to introduce variations in worktop heights at adjacent stations - e.g. where hot pots or pans can be hit against raised edges when being handled. Where such a danger exists, it is recommended that a uniform height should be used for adjacent surfaces.

5. Whilst a standard height of 900 mm is recommended for general use, this should not be used indiscriminately for all work surfaces. For example, preferred working heights for various kitchen activities are as follows:
sink rim height - 950 (900 min.); height of cooker/hob - 800-850 (900 max.); rolling and kneading - 850/875; cutting and chopping - 900; whipping cream - 800; ironing - 850 (range 750-950).

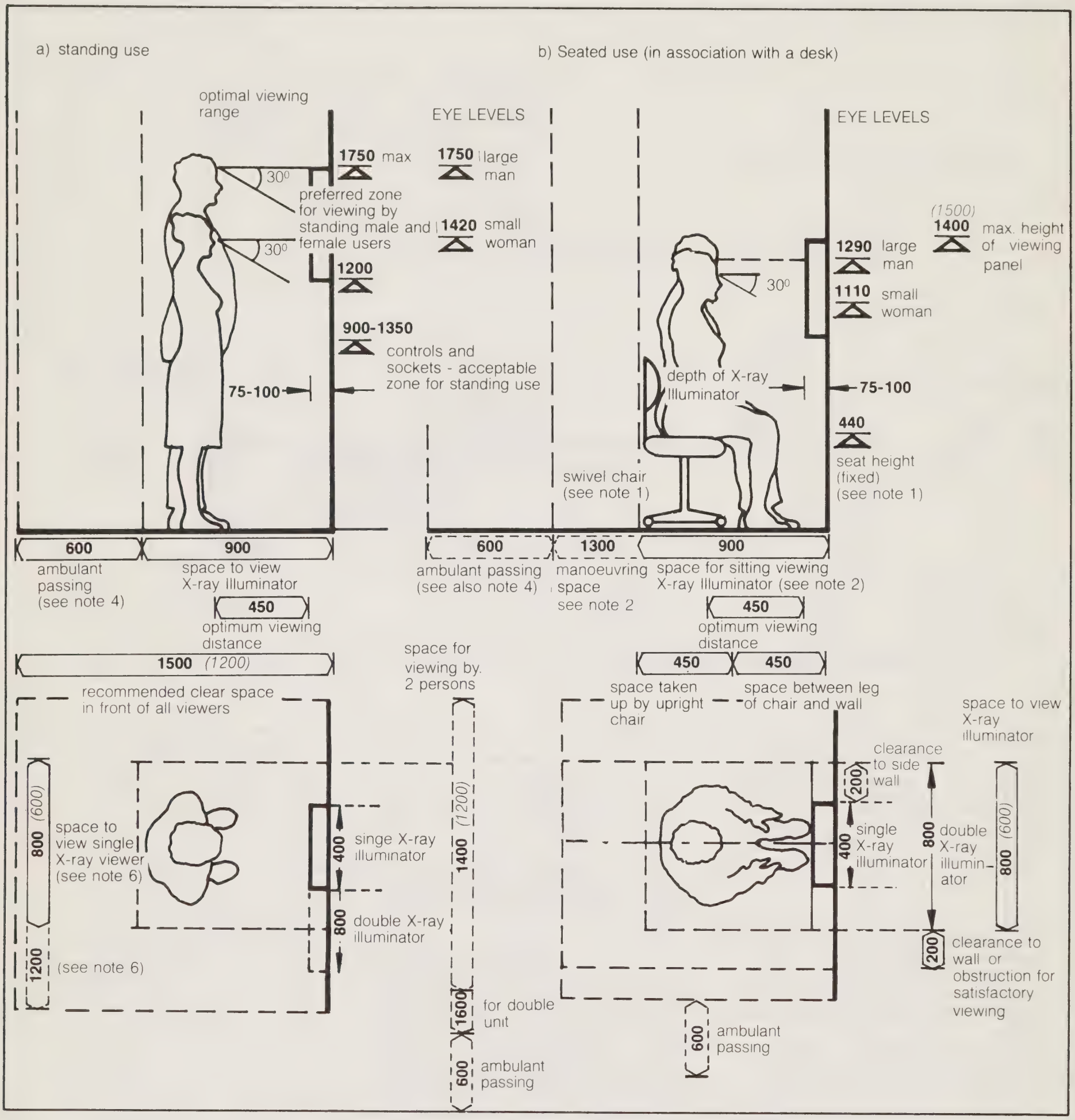
Activities:
Viewing films using wall mounted (or mobile - see note 5) X-ray illuminator.
(standing and seated use)

DHSS **Ergonomic data bank:**
Component user data sheet, not to scale

X-ray Illuminator

763

Users:
Male and female staff.



1350 *(1300)*

Preferred minimum: *Restricted minimum (not recommended for general use: see explanatory notes)*

Notes:

1. Seat height should preferably be adjustable as chair will be used in association with fixed-height desk.

2. This dimension accommodates upright chair plus restricted leg space (450) to achieve optimum viewing distance of 450. Width of space to use desk or to manoeuvre swivel chair is essentially greater than this.

3. Size of X-ray film is 430 x 355. Some illuminators may exhibit more than one film. Typical dimensions: 400 x 600 x 100 - single wall mounted.
550 x 800 x 100 - double wall mounted.
700 x 700 x 225 - double wall recessed.
Within the unit are incorporated controls, which will vary in location according to manufacturer. These are generally located below the film illuminator.

4. If ambulant passing needs to accommodate space for person carrying film cassettes, this space needs to be increased to 800.

5. X-ray illuminators on mobile stands generally relate to standing use only, therefore the height recommendations shown at a) above will apply. The depth of space to use mobile component will however need to be increased by 300-400 to accommodate the supporting base, also some additional width of space will be needed to manoeuvre the stand into position prior to use: 1000 *(900)* for single units, 1300 *(1200)* for double units.

6. It is preferable that all viewers for standing use should accommodate simultaneous viewing by 2 persons. Double units can be viewed by 2 persons within the width recommended for a single unit, but this restricts approach. 1600-1800 is preferable for comfortable use in busy areas.

APPENDIX

Appendix — Activity Data

Appendix

Activity Data

1. The expression 'Activity Data' refers to an information system developed to help project and design teams by defining the users' needs more precisely. This information constitutes the Activity Data Base, issued to Health Authorities in 1976, and comprises two types of information sheet: Activity Space Data Sheets (known as 'A' sheets) and their supporting Activity Unit Data Sheets (known as 'B' sheets).

2. 'A' sheets record in more detail than elsewhere in this Note each task or activity that is performed in a particular activity space (which may be a room, space, bay or corridor) together with details of the environmental conditions and the technical data necessary to enable the activities to be performed. Each 'A' sheet also contains a list of the titles and code numbers of the relevant 'B' sheets which give, both in narrative text and in graphics to scale, equipment fitted or supplied as part of the building and engineering terminals which satisfy the required user activities.

3. Further information about the use and preparation of Activity Data can be found in the 'Guide to 'A' and 'B' Activity Data Sheets and their use in Health Building Schemes' which was issued to Regional Health Authorities in June 1980 and to NHS Authorities in Wales in November 1980. Copies of the Guide are available from the Department's Directorate of Health Building, Branch HBD3, Euston Tower, 286 Euston Road, London NW1 3DN.

4. Users of hospital and other health buildings can be divided into the 6 broad categories of physical capability listed below, and these categories are often referred to by number on A and B sheets to indicate the range of patient capability for which a particular space or facility is intended.

Category 1. Fully capable
Persons who are fully physically capable of carrying out all activities necessary to their role or function.

Category 2. Partially capable
Persons able to walk and carry out a limited range of activities without assistance.

Category 3. Partially capable with assistance
Persons able to walk or to carry out a limited range of activities with assistance.

Category 4. Independently chair-bound
Persons able to propel their wheelchair unaccompanied, and transfer to and from the wheelchair, and carry out a limited range of activities without assistance.

Category 5. Assisted chair-bound
Persons not able to propel their wheelchair, and unable to carry out any but the most minor activities without assistance.

Category 6. The bed-fast

5. For the common activity spaces listed in this document an 'A' sheet reference code is provided. The sheet of this code number has been selected from the Activity Data Base as representing the common form of the activity space. In order to ensure consistency of provision, the designer should use the common 'A' sheet when possible and only for justifiable reasons should variations be used. When variations are necessary the common 'A' sheet code will lead the designer to the head code of that group of 'A' sheets in the Activity Data Base under which a suitable 'A' sheet may be found.

6. The information given in this document is directly related to the data given on the appropriate 'A' and 'B' sheets but it should be noted that the suggested activity space layout drawings in Part 1 do not necessarily include all the items shown on those sheets. Designers should refer to the appropriate Activity Data sheets in preparing activity space layouts.

7. Members of project teams are advised to contact their Regional Activity Data Co-ordinator/Welsh Office for information and advice about the selection of activity data at an early planning stage. However, in order to ensure consistent and economic provision, variations from the 'A' sheets recommended for the spaces covered in this Note should be considered only where it has been decided that the function of a space will substantially differ from that described.

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Printed for Her Majesty's Stationery Office by Commercial Colour Press, London E7. 6/86, C25, Dd.738534.

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First published 1986

ISBN 0 11 321047 7